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The Counterattack

In developing a defensive position the commander makes detailed plans for the use of every means available to halt the attacker in front of the main line of resistance. But he does not stop there. No matter how strong, how well planned, and how well organized a defensive position may be, the attacker can mass his troops and initially outnumber the defender in a given locality. The commander may think to himself, "I'm doing everything I can to insure the integrity of this battle position—it should hold." But he must also consider, "Suppose that somehow, someway, the enemy does penetrate it. What will I do then?" He must plan for every contingency. He must foresee every likely penetration and then have a plan prepared to counteract this threat when and if it materializes.

In his defense order the commander directs that counterattack plans be prepared for each likely area of penetration. Priority is given to areas which, if penetrated, will be critical to the defense of the position.

A counterattack differs from an attack only in that it is delivered from a defensive position. It is equally dependent upon surprise and speed of execution and requires the same carefully coordinated support of all available weapons. The counterattack plan contemplates a single coordinated blow delivered by as large and strong a force as the situation and terrain permit. The likelihood of success of a counterattack plan varies directly with the thoroughness of planning.

For the purpose of explanation the counterattack will be discussed on battalion level. The planning and execution of counterattacks by larger units is similar.

COUNTERATTACK PLANS OF A FRONT-LINE INFANTRY BATTALION

The mission of the counterattack is to re-establish the main line of resistance. This contemplates bringing to bear the most weight on the enemy within the penetrated area at the most opportune time. The basic element of the battalion counterattack force is the reserve company. To give maximum strength to the counterattack, additional troops and weapons are attached to or placed in support of the reserve company.

Each counterattack plan has a basic plan of maneuver for the employment of the counterattack force. The details of the plan are sufficiently flexible to permit quick adjustments based on the actual penetration.

A counterattack normally is made by foot elements reinforced with tanks and supported by all available fire power. Conditions favorable for the combined action of the infantry-tank team are frequently present, and the team's mobility, armor-protected fire power, and shock action are particularly effective.

The reserve company commander prepares the detailed counterattack plans concurrently with the organization of the defensive position, submits them to the battalion commander for approval, and makes the necessary coordination with supporting and adjacent units.

Counterattack plans are numbered or lettered in the order of the priority of planning. Each plan should be simple and capable of rapid execution. It should take advantage of surprise and enemy disorganization. The following factors are included in each plan:

Route(s) to the line of departure. The counterattack force must be able to move to the line of departure with the least amount of delay or interference from the enemy. The route should take the maximum advantage of defilade and concealment. Plans may include the use of smoke on enemy-held terrain or within the battle position to screen the movement. It may be necessary to designate separate routes to the line

of departure for the foot troops and the tanks of the counterattack force; the route may cross into an adjacent battalion area if the movement is coordinated with the adjacent commander.

Line of departure. This is the line from which the counterattack will jump off against the penetrated area. The line of departure is to facilitate the coordination between elements of the counterattacking force and the control of supporting fires. It should be close to the penetrated area so that maximum control will be in effect when contact is made with the enemy. Where possible, the line of departure should be along some easily recognizable terrain feature such as a trail, stream bed, or wood line.

Direction of counterattack. The direction of the counterattack and the line of departure are so closely related that one influences the other. Normally the counterattack is directed against the flanks or shoulder of the penetration since the enemy will be weakest at these points. Striking the flank and crossing the base of the penetration will enable the counterattacking force to pinch off the penetrated area, regain the main line of resistance, and prevent the enemy from reinforcing his troops in the penetrated area.

Objective. The mission and objective of the counterattack is to re-establish the main line of resistance. In so doing it must destroy or eject the enemy from the penetrated area, regain the lost defensive positions, and prepare the battle position to defend against another attack. Each element of the counterattacking force is assigned a definite objective so that when the counterattack is launched each individual knows exactly where he is to go and what he is to do. The counterattacking force does not move forward of the main line of resistance unless ordered to do so by the regimental commander. Once the main line of resistance is restored the enemy is pursued by fire.

Formation. The enemy is hit with full strength in a single coordinated blow. This does not mean that the reserve company always attacks with three platoons abreast, but rather that all platoons of the company are assigned definite

missions which will exert pressure on the enemy in the penetrated area and promote the successful completion of the counterattack. If the area of penetration is small, the reserve company may counterattack with two rifle platoons as a moving force, supported by the third platoon firing from prepared positions. In other situations the entire reserve company may be employed as a moving force, employing two platoons attacking abreast to restore the main line of resistance, followed by the third platoon to protect their rear and mop up in the area of penetration. The exact formation of the counterattacking force is determined by the terrain and situation.

Fire support. The counterattack has priority of all available fires. To insure success the fire support plan must be complete, yet simple enough to be properly executed. Fires are planned for all weapons which can engage the enemy within the penetrated area (see Figure 1). The fires are divided into two parts; first, those placed to neutralize the enemy troops within the penetrated area during the movement of the counterattack force to the line of departure. For planning and coordinating purposes this may be designated as "Area A"; second, a band of fire placed across the neck of the penetrated area to prevent the attacker from moving in reinforcements and to protect the re-establishment of the main line of resistance—designated as "Area B." (See Figures 2 and 3.) Although it will be necessary to shift fires within and between these areas, these shifts should be held to the minimum. Detailed arrangements are made for lifting and shifting fires. If strong enemy resistance is met within the pentrated area high angle fires may be diverted from the original plan to furnish close support to the counterattacking force.

When the reserve company commander makes the detailed plan for the supporting fires, he first notes all weapons that can support him from their primary positions. After checking these the reserve company commander determines how many weapons can give support by moving to supplementary positions. When all available weapons have been considered he assigns fire missions that will support the counterattack in the best manner.

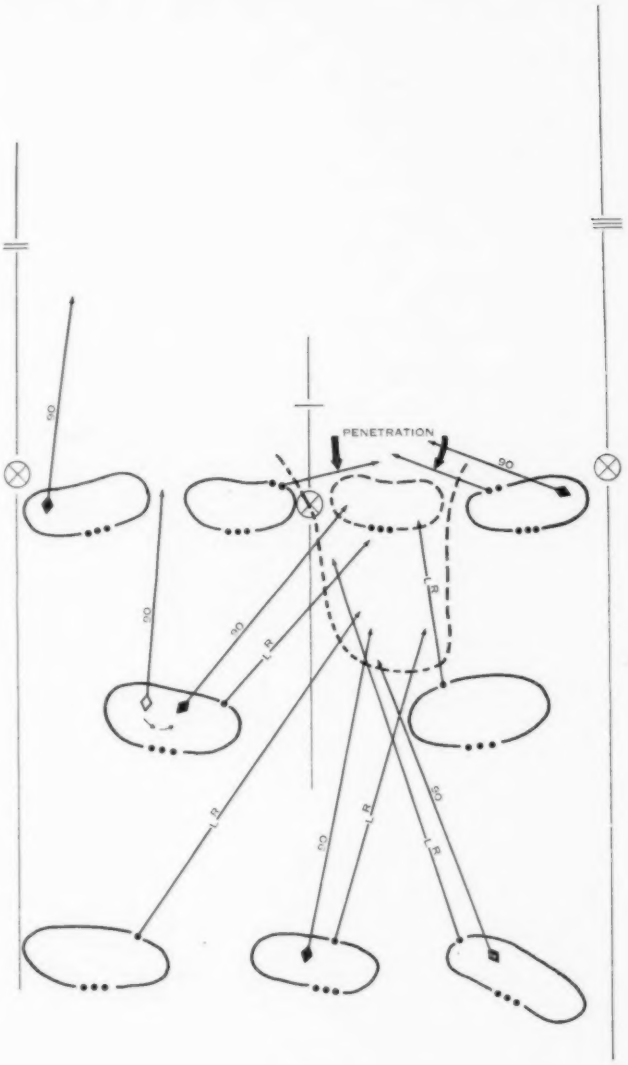


Figure 1. Flat trajectory weapons in conjuction with high angle fires help to eject or limit enemy penetration.

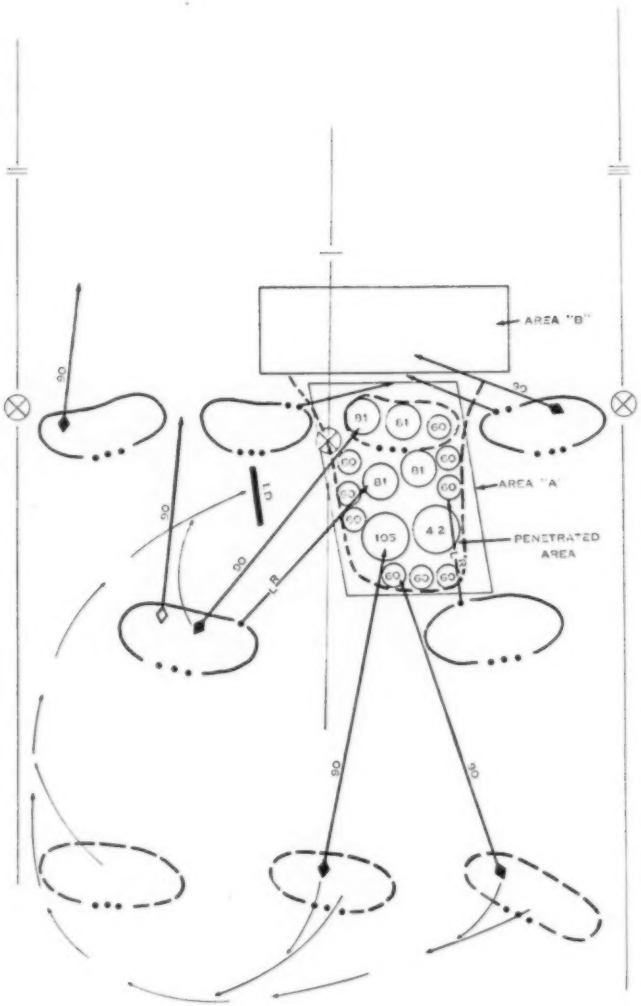


Figure 2. Prearranged fires into an enemy penetration destroy or neutralize the enemy while the counterattack force is moving to the line of departure.

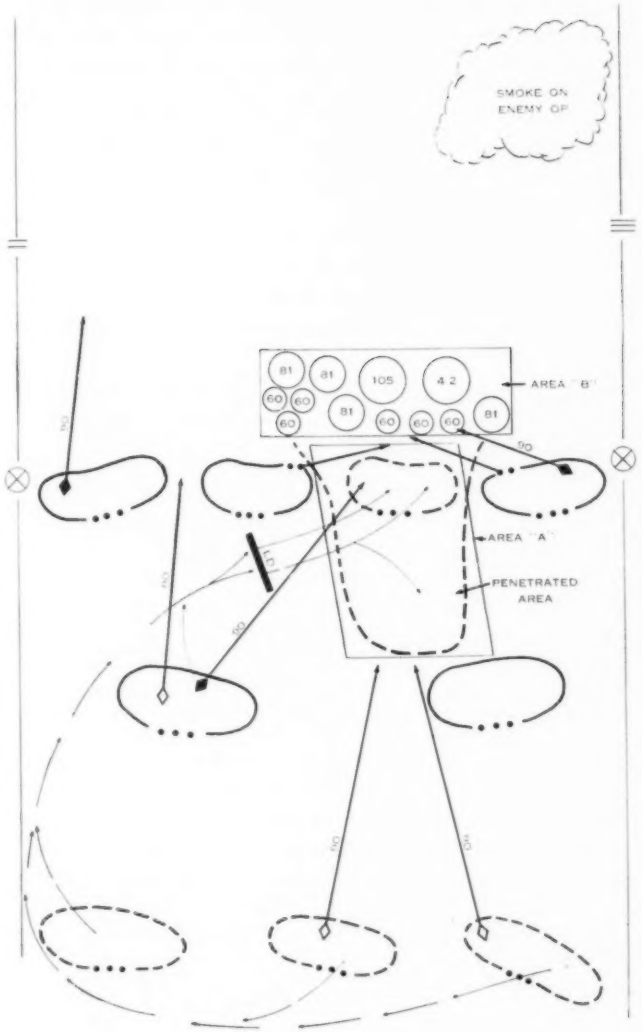


Figure 3. Counterattack plan of maneuver for elements of reserve company and attached tanks.

During the counterattack a weapon engaged in firing a final protective fire is not available to support the counter-attacking force unless its barrage or final protective line is being delivered in the threatened area. The reserve company commander cannot foresee what weapons, if any, will be delivering their final protective fires at the time of the counterattack, so he considers all fires in preparing his plans.

All attached and supporting units are employed according to their capabilities. The reserve company commander and the commanders of attached and supporting units coordinate their plans before the attack begins. The intended employment of these units is an integral part of the counterattack plan.

High angle fires are dispersed in the penetrated area so as to permit fire control, maximum coverage of the area, and effective use of weapons.

Machine guns. The light machine guns of the reserve company initially fire from their primary or supplementary positions into the penetration or along the nose and flanks of the penetration. When the reserve company moves out to counterattack, the rifle platoon light machine guns accompany their respective platoons as in any attack situation. The machine guns employed in the front-line rifle company areas are used to help seal off the penetrated area from the front and to contain the enemy.

Mortars. Initially, all available mortars fire into the penetrated area; later their fires are shifted to cover the reestablishment of the main line of resistance. Normally, 81-mm mortars of the battalion, 60-mm mortars of the front-line rifle companies, and supporting heavy mortars can support the counterattack from their initial locations. The 60-mm mortars of the reserve company provide close-in fire support during the attack and reorganization. They may accompany the counter-attacking force or they may support the attack from their initial firing position.

Artillery. In the defense one battalion of light artillery normally supports each front-line infantry regiment. The

regimental commander allocates artillery fires to his front-line battalions by assigning each battalion at least one artillery barrage. This barrage is fired by one artillery battery. When not engaged in barrage fire the artillery delivers fires on the enemy as he approaches the battle position; if the enemy penetrates the battle position supporting artillery is adjusted on the penetrated area. To support a counterattack against an enemy penetration, the artillery may be used to fire concentrations into the penetrated area; to seal off and prevent the flow of reinforcements into the area, or to accomplish these missions successively.

Coordination with temporary reserve commander. When the battalion commander orders the reserve company commander to plan a counterattack he also designates a temporary reserve commander and, insofar as possible, the troops that will constitute this temporary reserve. Generally this reserve is formed from whatever troops are available to protect the battalion rear area when the reserve company is committed to the counterattack. If the reserve company is committed, the temporary reserve commander coordinates the movement of temporary reserve elements into the positions vacated by the reserve and takes over the missions formerly assigned to the reserve company.

Coordination with commanders through whose areas the counterattack passes. When the counterattack plan is approved by the battalion commander, copies of the plan are distributed to higher, lower, adjacent, and supporting units. The reserve company commander coordinates with those commanders whose defense areas are affected by the counterattack plan. The counterattack route may cross into an adjacent battalion area if such a maneuver is coordinated with the commander of that area.

DECISION TO COUNTERATTACK

First let us dispose of a dangerous and all too prevalent impression—that an immediate counterattack is always the sure fire, all out, all purpose, SOP solution to an enemy penetration. A penetration is not an automatic signal for a counterattack. Penetrations frequently occur under tactical

conditions which would foredoom a counterattack to failure. What does the defending commander do in this case? He takes whatever measures necessary to limit the penetration. In the battle position there are positions prepared to extend the defense in depth. These positions are so designed and placed that when occupied they can limit every likely penetration. If the commander decides that the situation is unfavorable for a counterattack, he orders his reserve troops to contain the enemy by occupying these prepared positions.

The decision to counterattack or to occupy prepared positions is a command decision and is arrived at after a careful consideration of all the factors. The indications of success are balanced against the indications of failure. When the commander believes that the counterattack will succeed, then the answer is obvious. He counterattacks with everything available. If the odds are against success the commander fixes and holds the enemy by fire from prepared positions and informs the next higher commander of his actions.

Before a commander can make a sound decision, however, he must understand the principles of the counterattack and he must know under what conditions a counterattack is needed.

WHEN NEEDED

An important locality is lost or threatened. When the attacker captures and occupies a key terrain feature within the battle position a counterattack may be needed to eject him before he is able to exploit his initial success.

A dangerous gap is created. The attacker may force a gap in the battle position that will allow him to attack the stronger positions of the defense from directions unfavorable to the defender. If this gap cannot be neutralized by fire, it may be necessary to counterattack.

Fire alone fails to eject the enemy. After the defensive position is prepared every effort is made to destroy or repel the attacking troops by fire. With weapons positions well prepared and the communication system intact, every

available weapon that is within range can pound a penetrated area. However, if this fire alone fails to eject the enemy a counterattack may be needed.

FAVORABLE FACTORS TO BE CONSIDERED

In spite of the fact that a counterattack may be needed to reduce one of these threats, the defending commander first evaluates the situation to determine whether he can afford to countrattack. The following are some of the factors that he must consider:

The enemy is stopped, slowed, or disorganized. A counterattack is launched only after the enemy attack has lost momentum. Then a counterattack is feasible if there is a friendly force in position to contain the enemy in the penetrated area while the counterattack force moves to its attack position. In the battalion this holding force consists of the front-line platoons adjacent to the penetrated area and the support platoons of the front-line rifle companies.

Surprise is possible. The counterattacking force gains surprise by using concealed routes to the line of departure, moving under cover of smoke or noise of supporting weapons, coordinating the efforts of all units in the defending force, and by deceiving the enemy as to the time and direction of the counterattack.

Availability of adequate reserves and supporting fires. The commander may find that it takes all of his troops, including his reserves, to contain the enemy in the penetrated area. Or, hostile fire may inflict so many casualties within the reserve that the commander may be stripped of an adequate counterattacking force. In this case the commander fixes the enemy by fire from prepared positions and informs the next higher commander of the situation.

Mechanized elements in the penetrated area can be neutralized. If the counterattacking force is supported by superior armor, a counterattack is feasible against a hostile infantry-tank unit. When hostile tanks dominate the penetrated area, however, defending infantrymen remain in their prepared positions and employ their weapons to destroy the enemy infantrymen and as many tanks as possible.

Each of these factors enters into the decision. If the commander finds that he has a need to counterattack and that most of the conditions are favorable, then he may counterattack.

CONDUCT OF THE COUNTERATTACK

If the enemy succeeds in penetrating the battalion defense area, the defender first attempts to eject or to destroy him by fire. The maximum volume of fire is directed at the penetration. Units on the flanks of the penetration, the support platoons of the front-line companies, and, when necessary, the reserve company directs a mass of fire on the enemy. (See Figure 1.) If the penetration is too large to blanket with one mass of fire, fires are shifted from one portion of the penetrated area to another.

If the enemy penetration cannot be contained without the support of the battalion reserve company, conditions are not favorable for a counterattack and the reserve is directed to block and contain the enemy from its prepared positions. When the penetration can be contained by troops and fires from other than the reserve company, then the battalion commander must quickly decide if other conditions are favorable for a counterattack. Once the battalion commander decides to execute the counterattack he notifies the regimental commander and requests the support of all additional fires that are available.

The counterattack is launched during the period of temporary confusion and disorganization which occurs when the enemy attack loses momentum. This period is relatively short, so the success of the counterattack depends largely upon surprise, boldness, and speed.

The counterattacking force normally moves along previously selected routes to the line of departure. While it is moving prearranged fires are delivered into the penetrated area. (See Figure 2.) Whenever possible the counterattacking force, particularly tanks, moves through the gaps between organized defense areas, rather than passing through them. Close coordination and communication between the tanks and foot elements is essential. When the

counterattacking force is ready to cross the line of departure, prearranged fires in the penetrated area are lifted on signal from the counterattack commander, and are shifted to reinforce the fires across the neck of the penetration. These fires are continued as long as necessary. (See Figure 3.) The counterattacking force reoccupies the original defense positions and mops up any enemy in the penetrated area. The tanks of the counterattacking force remain in the vicinity of the restored main line of resistance to protect the foot elements while they organize the position. Later, they return to their initial positions.

ACTION AFTER COUNTERATTACK

When the counterattack succeeds, the troops of the counterattacking force do not advance beyond the original battle position except on specific orders from higher commanders. When the hostile penetrating forces are destroyed or ejected, contact beyond the main line of resistance is maintained by fire, observation, and patrols.

After the counterattack has restored the main line of resistance, the counterattacking force insures the integrity of the battle position. Units are designated to remain and defend the main line of resistance, prepared positions are occupied, and crew served weapons are replaced. A reserve is reconstituted either from elements of the front-line units relieved by the counterattack, or from elements of the counterattacking force. The personnel of the temporary reserve who can be released return to their primary duties.

GENERAL

Should the counterattack fail to complete its mission the counterattacking troops dig in and hold the line on which they are stopped. The regimental commander is informed, and the new line is held until further orders or reinforcements are received.

Penetrations of adjacent defense areas are opposed by moving part or all of the reserve to flank positions in order to prevent the widening of the penetration and the envelopment of the battalion flank.

A penetration astride a battalion boundary is opposed initially by fire from both battalions. Any counterattack necessary to eject the enemy from the area of penetration is coordinated by the regimental commander.

PRACTICAL EXERCISE

SITUATION. The 1st Battalion, 1st Infantry Regiment is preparing a defensive position as shown in Figure 4. When he issues the battalion defense order, Lieutenant Colonel 1st Battalion directs Captain Company C, the reserve company commander, to prepare a counterattack plan to eject an enemy penetration in the Ware Creek draw.

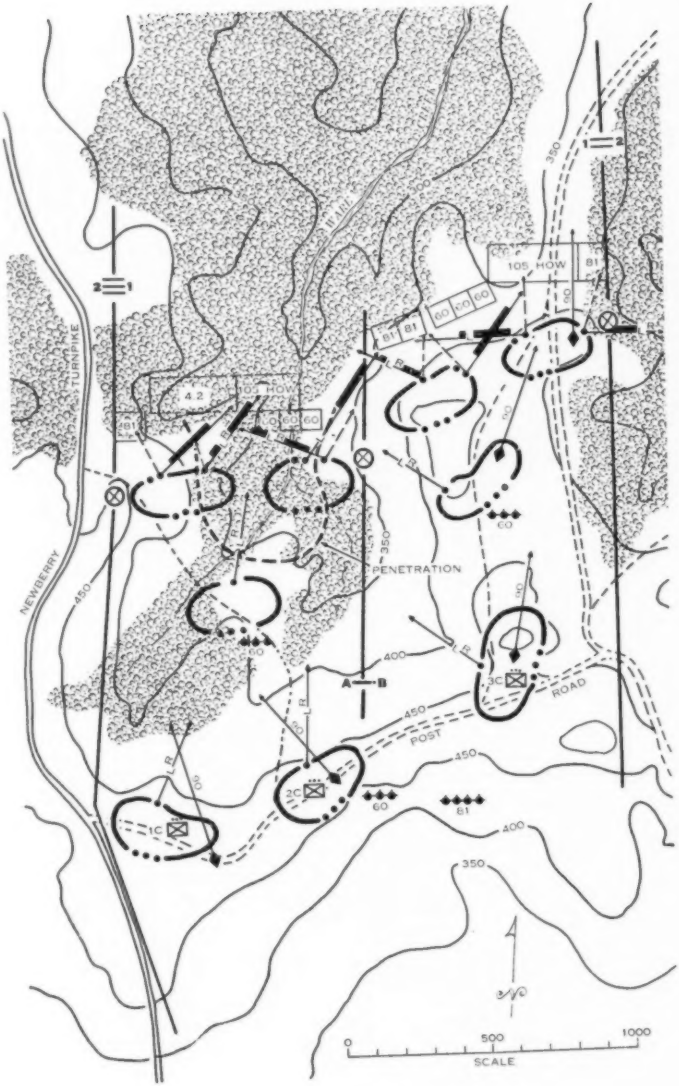
Captain Company C obtains an overlay of the battalion defense plan from the battalion S-3 and begins to prepare a counterattack plan. Based on the information furnished by the S-3 and a map study, Captain Company C formulates a tentative counterattack plan.

REQUIREMENT. You are Captain Company C. Show by appropriate symbols and explanatory notes in Figure 4 your tentative plan for the counterattack against an enemy penetration of the Ware Creek draw, to include the following:

Route to the line of departure
Line of departure.
Direction of counterattack
Objective
Formation
Fire support

A SOLUTION. See Figure 5.

DISCUSSION OF SOLUTION. *Route to the line of departure.* The map indicates a wooded and defiladed approach along the battalion's west flank which will provide the counterattacking force with a concealed and covered route. The 1st and 2d Platoons of the reserve company move directly to this route from their primary positions located along the Post Road. The 3d Platoon moves to the rear to take advantage of the defilade south of Post Road, then moves to the west flank to join the other platoons. When checking this tentative plan on the ground Captain Company C determines whether tanks can follow this route.


NEWBERRY
TURNPIKE
RIVER
105 HOW
81
60
4.2
PENETRATION
A—B
ROAD
POST
1C
2C
3C
SCALE
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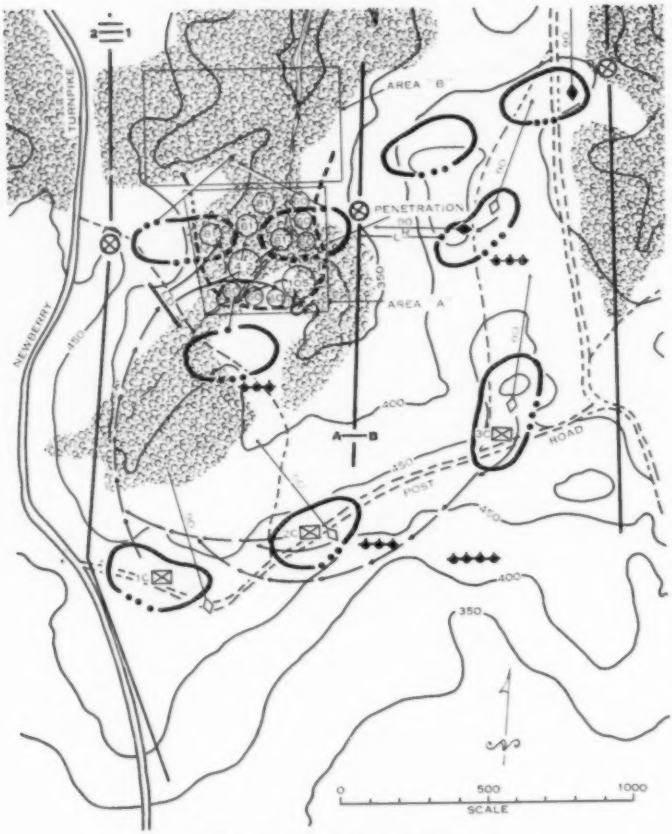
500
1000

Figure 4.



Objective of Counterattack

1st and 2d Platoons to re-establish the main line of resistance; 3d Platoon to protect rear of 1st and 2d Platoons, then to mop up enemy left in penetrated area.

Fire Support

The artillery barrage and 60-mm mortar barrages of Company A located in Ware Creek Draw will be fixed in Area B during entire counterattack.

When lifted from Area A fires will be placed in Area B as shown until the main line of resistance is re-established.

All fires in Area A will lift on red star parachute signal fired by left platoon of Company C. Radio and wire communications will also be used.

Figure 5.

Line of departure. Captain Company C notes from his map that the best approach to the likely area of penetration is along the battalion's left flank. He also notes that a trail running north from Post Road to Newberry Turnpike passes within 200 yards of the west flank of the indicated penetration. He tentatively selects a line of departure along this trail because it is easily recognizable on the ground, and it is only a short distance from the flank of the penetration.

Direction of counterattack. When considering the line of departure Captain Company C selects one which permits the counterattacking force to attack the flank of the penetration.

Objective. The overall objective of this counterattack is to regain that portion of the battle position which has been indicated as a likely area of penetration. Captain Company C notes that this area includes part of two front-line platoon defense areas of Company A, and selects these areas as objectives for two platoons of his company. The remaining platoon of Company C is assigned the mission of initially protecting the rear of the other two platoons and then mopping up the enemy left in the penetrated area.

Formation. Captain Company C tentatively decides that the best formation for the counterattack force is two platoons abreast followed by the third platoon.

Supporting fires. Captain Company C plans his supporting fires in two phases: initially he plans to have the fires from all available supporting weapons, except one artillery battery and the Company A 60-mm mortars, fire into Area A. When the leading platoons cross the line of departure, he plans to have all supporting fires shift on signal to Area B to reinforce the fires in that area and to seal off the penetration. (See Figure 5.) At that time the Company C mortars will move to covered positions in rear of the line of departure and closely support the attack on call.

Tanks. Captain Company C plans to have the three tanks in the reserve company area attack with the assault platoons. One tank in the Company B area will move to a supplementary position and support the attack by fire. The other tank in Company B area remains in position to guard the road along the battalion right flank.

Communication. Both radio and wire communication are planned for the counterattack. In addition, a red star parachute is designated as the signal for shifting supporting fires from Area A to Area B.

After Captain Company C has decided on his tentative counterattack plan he will make a physical reconnaissance of the ground to insure that this basic plan is workable. After the necessary alterations are made he continues to perfect and enlarge the plan to include all other details which will contribute to the successful execution of the counterattack. If time and the situation permit he will conduct rehearsals of the plan. If rehearsals are not practicable, he at least insures that all leaders know the details of the plans.

SUMMARY

In the defense each commander is responsible for maintaining the integrity of his assigned defensive position. His planning must not only include means for defeating the enemy in front of this defensive position, but must also include positive measures for destroying or ejecting any enemy force that penetrates the position. The defending commander estimates the likely area or areas of penetration and requires his reserve commander to plan and rehearse the counterattack. The plan embodies surprise, speed, and simplicity, to insure that the counterattack can be immediately launched at the opportune time to strike the enemy a solid, smashing blow.

Postwar Developments In Infantry Offensive Tactical Doctrine

The battlefields of World War II were the proving grounds for our pre-war tactical concepts. In most cases our concepts were proved to be sound; in some cases changes were made while the war was in progress to adjust our tactics to improved weapons and equipment. In a few cases, however, combat experiences revealed that some of our doctrine was not workable in the stress of combat.

Continuing effort is being directed at the eliminating of recognizable flaws and the adding of new developments and techniques. This article outlines some of the changes that have taken place in the recent few years—improvements which have been instigated and developed by thousands of battle experienced infantry leaders all over the world.

Some of the first developments that arose from the lessons learned in the war were those which altered infantry tables of organization.

Based on the expectation that in the future replacements will be promptly available to the squad, the squad organizational strength was cut from twelve men to nine men. Combat experience showed that a twelve man squad was too large to be controlled by one man. With the smaller squad the squad itself becomes the basic rifle unit, and there is no longer need for the "Able Baker Charlie" team subdivision.

Another change that affects the infantry rifle squad is the elimination of the term "scouts." This term has been used ever since the Indian War to designate those men who preceded the squad in order to seek out the enemy. In the past war, however, the practice of using the same two individuals as scouts day in and day out and through thick

and thin proved to be impractical. Leaders who tried to follow this concept soon found that these individuals became too cautious and were often much too slow in accomplishing their mission. Eventually they became casualties or they became unreliable because of the constant mental strain. Meanwhile, other riflemen remained relatively untrained in the duties of scouts.

A take-your-turn policy was actually carried out in combat. The experienced squad leader did not call upon the regular scouts for repeated missions but tossed aside the theoretical solution for a more practical one. He merely checked his riflemen to determine who was next in line to act as the security element.

A squad or platoon now obtains security for itself by using the proper formation and by employing a portion of its own personnel for security. For the squad, the security element may consist of one rifleman or several riflemen. For the platoon, a squad or a portion of a squad is employed as the security element. All riflemen are trained to act as members of the security element so that this important and hazardous task can be rotated. In the squad individuals are rotated; in a platoon, squads are rotated. The use of a squad to perform the security mission eliminates the control problem brought about by several pairs of scouts operating under different leaders and results in much better teamwork.

SUPPORTING WEAPONS

Another change of significance in the tables of organization is the elimination of the cannon and antitank companies from the infantry regiment in favor of a heavy mortar company and a tank company.

The heavy mortar company, rich in heavy fire power, is capable of reaching into deep defilade for its targets. Highly flexible and easily controlled, it gives the regimental commander an extremely powerful and effective organic fire support unit. The doctrine governing the employment of the heavy mortar company does not differ materially from the doctrine governing employment of the chemical mortar

units which fired 4.2-inch high explosive and smoke shells in support of infantry during the war.

A tank company was added to the infantry regiment because experience indicates that the most effective antitank weapon is the tank itself. In offensive operations a combination of an infantry unit and a tank unit, each of a size appropriate to the job to be done, makes an extremely effective fighting team.

The tank company tactical doctrine is designed to best assist the assault elements. One or more tank platoons are frequently attached to a battalion or a rifle company to form an infantry-tank team. There are five general methods of attack which may be employed by infantry-tank teams. These methods are frequently modified by combining elements of two or more methods, and the character of enemy resistance and the terrain indicate which method will be most successful:

1. *Initially, the tanks support the infantry by fire from stationary hull defilade positions on or near the line of departure. When the infantry approaches the assault position, the tanks advance rapidly and join the infantry at the assault position.* Supporting fires on the objective are then shifted and the assault is executed by infantry and tanks together. The tanks time their advance from the line of departure so that infantry and tanks reach the assault position at the same time. During the assault, infantry and tanks advance generally abreast.

This method is advantageous when the objective is clearly defined and when the tanks have good fields of fire. Surprise is facilitated; maximum tank fire power is available at the critical time of the final assault; and the fire delivered from the moving tanks at short range, in combination with the assault fire of the infantry, adds to the intensity of the shock effect.

2. *Tanks cross the line of departure at such time as to pass through the advancing infantry, either before it reaches the assault position or at the assault position.* Thereafter the tanks precede the infantry by distances varying from 50 to 300 yards. Antitank protection for the advancing tanks is furnished by time or VT artillery fire,

the accompanying rifle unit, and the tank-mounted weapons. Supporting fires are lifted just before the tanks reach the objective, and the following rifle units immediately open assault fire and follow the tanks onto the objective.

This method is used when the attack is heavily supported by artillery fire, when the enemy possesses little or no overhead cover, or when the enemy has only a small amount of armor in his forward antitank defense. It has the advantages of speed and shock action and facilitates surprise. Maximum tank fire power is available during the critical period when supporting artillery and mortar fires are being shifted and when the task of keeping the enemy's forward weapons neutralized is passing to the assault echelon.

3. *Infantry and tanks move by separate routes and converge on the objective from different directions.* Due to the greater speed of the tanks, the infantry usually launches its attack first, and the tanks move out in time to join the infantry on the objective. Whenever possible, the tanks initially support the infantry advance by fire until the tanks launch their attack.

This method is useful when the terrain or enemy defenses favor the use of separate routes for infantry and tanks. It may achieve surprise and it has the advantages of converging fire effect and shock action. It often serves to reduce the enemy fire delivered upon the infantry when moving closer to the tanks.

4. *Infantry and tanks move together at the same rate of speed throughout the advance from the line of departure to the objective.* The infantry may move slightly in advance of the tanks, between them, or immediately in rear. As the advance progresses the relative positions of tanks and infantry are adjusted to conform to the character of enemy resistance and the terrain.

This method is used when visibility is restricted, as in built-up areas and in woods. It insures close coordination and maximum mutual support, but sacrifices speed and surprise. The slow rate of movement makes the tank more vulnerable to hostile antitank fires and gives the enemy time to adjust his defense.

In close terrain when little is known of the enemy, it will frequently be desirable to employ this method initially, passing to another method when the assault echelon enters more open terrain or when the enemy situation clarifies.

5. *From stationary hull defilade firing positions on or near the line of departure, tanks support the infantry by overhead or flanking fire throughout the advance.*

This is the least efficient method and is used only when antitank obstacles, either natural or artificial, prohibit the movement of tanks to the objective or when additional tanks are provided to increase the tank support in one of the other methods.

Regardless of the method used to reach the objective, once it is captured the infantry and tanks coordinate during the mopping-up phase. Tanks assist the infantry in clearing the objective area of hostile automatic weapons; infantry assists the tanks by promptly eliminating individual and crew-served antitank weapons. During reorganization and preparation to continue the attack, the tanks are disposed with the infantry to hold the captured ground against counterattack.

In employing any of these methods or combinations it is advisable to use the tank platoon as a unit. However, in combat in woods, jungles, mountains, or cities, tank sections may be temporarily attached to rifle units.

LIGHT WEAPONS

There are several interesting developments in the tactical employment of the 60-mm mortar section, the 57-mm rifle section, and the light machine guns of the rifle platoons.

Throughout the war infantry commanders were taught that the mission of the three 60-mm mortars in each rifle company was to provide continuous close support to the rifle platoons during the attack. The word "continuous" proved to be the joker. To achieve continuous support, the mortars had to be displaced forward by echelon, but the organic communication and transportation in the section was insufficient to permit the mortar section to operate in more than a single echelon.

By omitting the word continuous, the 60-mm mortar section has a mission that they can actually accomplish. They normally displace as a section using the single ¼-ton truck and ¼-ton trailer organic to the section. While the 60s are moving, the 81-mm mortars or other designated supporting weapons take over their close support mission. Here again, doctrine has been revised to conform to actual limitations.

Each rifle company has a section of three 57-mm rifles. In the attack the section is broken down to three squads and one squad is normally attached to each platoon. The attachment of a 57-mm rifle squad provides the rifle platoon leader with an extremely accurate and powerful direct-fire weapon which can be brought to bear immediately upon any target confronted by the platoon. If the rifles were employed as a section, target designation would be more difficult, adequate communication facilities would be lacking, and the resulting loss of time might hamper the assault platoons. The normal method of employment is modified under varying situations and conditions of terrain. When one rifle platoon is held out as a support unit, for example, the third 57-mm rifle of the section is not held out of action; it is usually placed in a firing position from which it can give general support to the company attack, and it joins the support platoon when it is committed.

Each rifle platoon now has a weapons squad equipped with one light machine gun and one rocket launcher. Assignment of a single light machine gun to each platoon represents a slight modification of the long-established doctrine of employing machine guns in pairs. It is not, however, a change in doctrine; it is still highly desirable to employ machine guns in pairs, particularly in the defense.

The light machine gun provides the platoon leader with additional firepower. The gun accompanies the assault elements or it is placed in position to support the advance of the forward elements of the platoon by placing flanking or oblique fire on the enemy. In either case the platoon leader has greater firepower under his immediate control.

MOVEMENT TO CONTACT

Movement to contact is nothing new; it is merely a term used to describe that movement in the direction of the enemy which must be executed by a unit in order to join battle. As such a movement progresses, the imminence of contact with the enemy naturally increases. It is the problem of the commander of the unit to dispose his command and adjust his dispositions from time to time so that the best possible balance between speed and control on the one hand, and readiness for action on the other hand, is maintained throughout the movement.

Movement to contact is that ground movement conducted in a theater of operations preliminary to combat for the purpose of placing troops in position to close with the enemy. The commander concerned obtains timely information of hostile forces by using reconnaissance agencies attached to or organized within his command, from reports of air and ground reconnaissance agencies controlled by higher authorities, and from friendly forces operating to the front and flanks. This information includes the location, approximate strength, dispositions, and direction of movement of hostile forces. Based on this information the commander assures adequate security by making appropriate changes in his formation and tactical groupings to retain the maximum mobility, flexibility, and control. Movement to contact does not embrace troop movement by air or by sea, as security during those movements is provided by the Air Force or the Navy.

A unit making a movement to contact passes through one or more of the following three phases:

1. First phase (contact remote)—enemy ground action is remote.

2. Second phase (contact improbable)—enemy ground action is improbable.

3. Third phase (contact imminent)—enemy direct ground action is imminent.

The commander makes a continuous estimate of the situation in order to dispose the units of his column at the

proper time and place to meet the situation. The phases are not designated in the movement order, and the passage from one to another is indicated when the commander, *in his estimate of the situation,* believes that the degree of imminence of contact has so increased as to require a corresponding increase in readiness for action. Any formation providing maximum speed and control, consistent with adequate security, is used during the phases of movement to contact. The troop formations appropriate to the corresponding phases are route column, tactical column, and approach march. The phases are not always successive.

Route column. During the contact remote phase of movement to contact, administrative considerations govern and it is not necessary to maintain the integrity of tactical units. In route column a force may march as a unit or it may be divided into groups which move by various means of transportation over different routes. The route column ends when the force must be grouped tactically before continuing the march.

Tactical column. During the contact improbable phase of movement to contact, both tactical and administrative considerations govern. Although the movement is made in a column, units are grouped tactically to facilitate either the prompt adoption of a combat formation or the orderly movement to an assembly area or an attack position. The formation, tactical grouping, and the distances between and within units depends upon the probable mission of the force, the method of movement, road and traffic conditions, and the effectiveness of enemy air action and long-range weapons. This phase ends for any element of the command when it initiates the approach march, when it occupies an assembly area or attack position, or when it is committed to an attack.

Approach march. During the contact imminent phase of movement to contact, tactical considerations govern. Elements of the command who are close to the enemy are deployed in a suitable tactical formation. Other elements of the command continue in tactical column until they in turn

must adopt an approach march formation because contact with the enemy has become imminent.

The formation adopted depends upon the mission of the unit, the method of movement, the strength of the screening force, the terrain, and the commander's estimate of the enemy situation. Any formation appropriate to the situation may be used. This phase ends when ground contact is made or when an attack position is occupied.

A successful movement places troops at their destination at the proper time and in effective condition for combat. In applying the principles stated above, a commander, by making a correct estimate of the situation, can dispose his command in any appropriate formation. The formation adopted disposes troops to facilitate control, to expedite the movement, to conserve the energy of the troops, and to provide adequate security.

CONDUCT OF RIFLEMEN IN THE ATTACK

All too frequently the term "pinned down" was used to describe a situation in which attacking riflemen were subjected to unaimed and ineffective small-arms fire. Frequently when a single individual in a platoon was hit, the entire platoon hit the ground and sought cover. Many attacks supported by artillery and mortar concentrations failed to develop properly because platoon and squad leaders failed to realize the ultimate value of being aggressive.

To remedy this deficiency in basic training, the infantry emphasizes training that gives riflemen more confidence in their own fires and teaches them to take the maximum advantage of supporting artillery and mortar fires.

If riflemen are moving in the attack and enemy small-arms fire is not specifically directed at them, even though several men may be hit by stray bullets, it is by no means time to seek covered positions and to stop pressing the attack. The riflemen keep moving ahead taking full advantage of the relative ineffectiveness of the enemy fire. If supporting fires are insufficient to neutralize the enemy weapons, the assault riflemen fire as they advance. If the

enemy continues to fire, the platoon leader uses fire and maneuver within his platoon and adjusts supporting fires on the enemy weapons. In some cases the riflemen can advance all the way to the assault position without having to add their own fire to that of the supporting units. In any case, when supporting fires lift from the objective the assault platoons take up assault fires and advance rapidly to the objective. The lifting or shifting of supporting fires is indicated to the riflemen of the assault echelon by a visual signal.

NIGHT ATTACKS

Current doctrine emphasizes the importance of night attacks. Wartime experience indicated that although they were hard to plan and difficult to conduct, they were highly profitable. Frequently local advantages were gained at a relatively inexpensive cost at night, whereas the same objective could have been taken in daylight only at a heavy and sometimes prohibitive cost. (See *Night Attack*, page 65.)

FIRE ADJUSTMENT

A simplified procedure for adjustment of observed fires has been standardized for all supporting weapons. Infantry leaders can be taught the essentials of the new system in a few hours, and using the standard system, any individual who has communication with a fire direction center—infantry, artillery, or naval—can adjust the fire of any weapon on any target he can see.

This is a far cry from the complicated procedures used during the war. Artillery used one system, 60-mm and 81-mm mortars used another system, 4.2-inch chemical mortars used a third system, and naval gunfire directed at land targets used a still different system. Even a trained observer sometimes had difficulty in adjusting fires of different types of supporting weapons.

The standardized method of fire adjustment as well as the other developments previously discused are indicative

of a trend toward simplicity and workability. Even though infantry weapons and equipment continually become more complex, doctrine must not become complicated. On the battlefield the simplest method is difficult; a difficult method is impossible.

The developments do not represent radical changes or innovations in the fields of tactics, but rather are the joint efforts of many combat-experienced officers to apply common sense to the battlefield.

Infantry in Pursuit

"Relentless and speedy pursuit is the most profitable action in war." This statement by General Eisenhower aptly summarizes the principle that pursuit is launched whenever a successful attack creates an opportunity to surround, cut off, and destroy a demoralized enemy. Vigorous application of this doctrine resulted in decisive Allied victories in the advances from El Alamein to Tripoli, across Sicily to Palermo, up the Italian boot, from Normandy to the Siegfried Line, and from the Rhine to Czechoslovakia and Austria.

PRINCIPLES OF PURSUIT

The object of pursuit is to completely destroy the fighting capacity of the hostile forces. This is seldom accomplished by frontal action alone, which merely pushes the enemy straight back on his lines of communication. In order to achieve decisive results direct pressure against the retreating forces must be combined with an enveloping or encircling maneuver designed to place troops across the enemy's line of retreat.

When a commander plans an offensive against an organized enemy position, he also makes tentative plans for exploiting success. The purpose of every attack is to destroy the enemy. In some cases this is achieved on the defender's position; more often, however, it is only partly achieved there, and as the defender's likelihood of defeat becomes stronger, he attempts to salvage the remainder of his forces by withdrawal. The attacker must sense this moment and be prepared to clinch his victory by promptly launching a vigorous pursuit.

Pursuit is initiated only upon order of higher commanders, usually at corps or higher level. It is launched when the

enemy is no longer able to maintain his position and endeavors to withdraw. Once the pursuit begins, every conceivable means is used to maintain the continuity of the attack and to exert unyielding pressure on the enemy. Troops are pushed to the limit of their endurance. Reserves are committed unhesitantly to keep up the momentum of the offensive. To stop for rest, maintenance, regrouping, or any other purpose gives the enemy time which he desperately needs—a breathing spell during which he can pull his scattered units together, gain distance, and place obstacles between his forces and ours. It may even enable him to slip out of the trap and again establish an effective defensive position.

Success in pursuit requires the utmost mobility. Again in General Eisenhower's words: "Speed makes possible the full exploitation of every favorable opportunity and prevents the enemy from readjusting his forces to meet successive attacks. Thus through speed and determination each successive advantage is more easily and economically gained than the previous one. Continuation of the process finally results in demoralization of the enemy . . . Veteran troops realize that by continuing the advance and attack against a shaken enemy the greatest possible gains are made at minimum cost."

Armored units are particularly suited for pursuit; however, accompanying infantry must have its mobility increased to keep pace with the armor and to participate in the capture and consolidation of important objectives. Artillery and other supporting units are attached to both the direct-pressure and encircling or enveloping forces. Airborne troops may be used to seize key terrain or tactical localities deep in the hostile rear, pending the arrival of encircling units. Tactical aviation is used against the targets which contribute most to the success of the pursuit; chiefly, these targets are critical points on the enemy's lines of communication, hostile columns in retreat, and hostile reserves attempting to reestablish the defense. Through radio-equipped air liaison parties, the advancing ground units maintain contact with the cooperating aircraft to coordinate their efforts during the rapidly changing situation.

The pursuit is conducted on a broad front. Command is decentralized. Orders are of the mission type assigning distant objectives, with directions of advance, routes, or zones of action. Small-unit commanders exercise a high degree of leadership and initiative, exploiting opportunities for decisive action. They must act with boldness and force. Enemy demoralization reduces the risk involved in advancing with open flanks and temporary lack of contact with friendly units.

Any enemy attempt to organize his retreat under the cover of darkness must be frustrated; under no circumstances should he be allowed to break contact. Units which have advanced against slight opposition by day continue their march during the night. Other units make successive limited objective attacks against the enemy to their front.

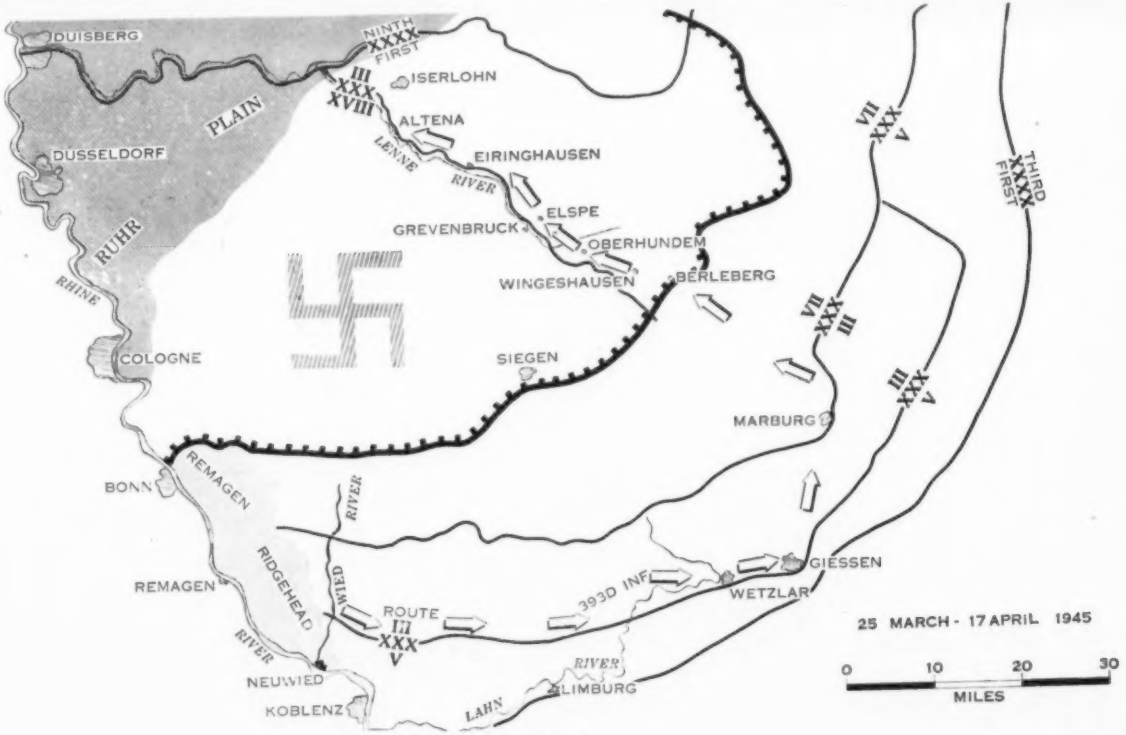
During a night pursuit the leading detachments push their advance along all routes, followed by the main pursuing forces. Attached and supporting artillery units advance by echelon, going into successive positions from which they can interdict the enemy's routes of retreat. Infantry units report promptly the capture of each objective so that artillery fires may be coordinated.

Radio is the primary means of communication and is used almost exclusively by the leading and maneuvering elements, with less than the usual security restrictions. Wire lines are laid along the principal axes of advance. Command posts are kept well forward to simplify communication and control.

Adequate provision for resupply of ammunition and motor fuel is essential to the success of the pursuit. Every opportunity is seized to augment supplies with captured or abandoned stocks. All motor transportation, including transportation captured from the enemy, is used to increase the mobility of the pursuing troops.

HISTORICAL EXAMPLE

On 25 March 1945 the First US Army broke out from Remagen Bridgehead as part of the general Allied offensive into the heart of Germany. VII Corps attacked on the


DUISBERG
NINTH
XXXX
FIRST
ISERLOHN
III
XXX
XVIII
PLAIN
ALTENA
LENNE
RIVER
EIRINGHAUSEN
DÜSSELDORF
ELSPE
GREVENBRUCK
OBERHUNDEM
RUHR
RHINE
WINGESHAUSEN
BERLEBERG
VII
XXX
V
THIRD
XXXX
FIRST
VII
XXX
III
COLOGNE
SIEGEN
III
XXX
V
MARBURG
BONN
REMAGEN
RIVER
REMAGEN
RIDGEHEAD
WIED
GIESSEN
WETZLAR
393D INF
ROUTE
III
XXX
V
RIVER
NEUWIED
LIMBURG
KOBLENZ
LAHN
25 MARCH - 17 APRIL 1945
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20
30
MILES

Map 1.

north; V Corps attacked on the south. III Corps, consisting of the 9th and 99th Infantry Divisions and the 7th Armored Division, attacked in the center astride the Autobahn advancing southwest toward Wetzlar and Giessen (See Map 1).

The 9th and 99th Divisions crossed the Wied River during the night 22-23 March and seized favorable terrain for the main attack. The 7th Armored moved through gaps and launched the pursuit. The two infantry divisions, less motorized infantry units attached to the armored combat commands, had the mission of following as closely as possible, sweeping the zone of action, and clearing out pockets of resistance bypassed by the armored spearheads.

Trucks were not available to motorize the two divisions. This created the first and foremost problem of infantry in pursuit: how to attain sufficient mobility. Foot troops, with a rate of advance only one-tenth that of armor, had a mission which required many delays in their advance while the tank units dashed ahead. Improvization was the only solution.

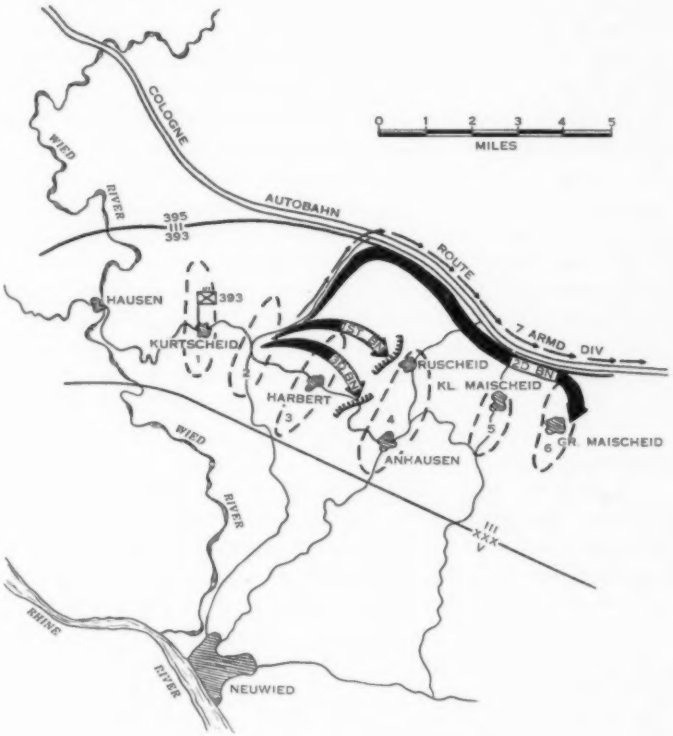
On the extreme right in the III Corps zone was the 99th Division's 393d Combat Team, consisting of the 393d Infantry Regiment, reinforced by:

370th Field Artillery Battalion (105-mm Howitzer)
400th Field Artillery Battalion (Armored)
Company A, 786th Tank Battalion
Company A, 629th Tank Destroyer Battalion
Company A, 324th Engineer Battalion
Company A, 324th Medical Battalion

The 7th Armored Division made spectacular advances and the 393d Combat Team remained close behind only by exerting the greatest effort. The tanks raced forward beside the Autobahn, which was hardly used because of many demolitions. To the south the 1st and 3d Battalions of the 393d drove the enemy back into the woods and hills. The 2d Battalion, reinforced, moved far around the left following the armored route then attacked south and quickly occupied the regimental objective for that day. This movement encircled the enemy facing the 1st and 3d Battalions

and resulted in the capture of a large number of prisoners (see Map 2).

The division commander, on receiving the regimental commander's report that he had just arrived at Objective Number 6, exclaimed, "But you haven't reported taking 4 and 5 yet!"



Map 2.

"We haven't taken them yet, but we're doing it now," the regimental commander replied.

To maintain the rate of advance infantry foot troops

rode on every available vehicle, including tanks, tank destroyers, weapons carriers, and antitank and artillery prime movers. The sweeping operation was accomplished by extensive use of motor patrols. Wherever resistance was met an attack was launched immediately with little preparation. Other units were leapfrogged forward while the resistance was mopped up, and deployed troops reassembled in regimental reserve where they again mounted vehicles.

Prisoners by the thousands were rounded up. Rather than immobilize any troops by using transportation for evacuation, prisoners were simply disarmed and directed to the rear, with almost no guards. They marched in long columns on the side of roads already crowded with oncoming traffic. This adequately solved the evacuation problem, although it was later learned that the arrival of unguarded prisoners caused considerable surprise to troops establishing prisoner-of-war enclosures at Remagen.

Liberation of numerous slave labor camps tended to cause additional delay. This was reduced by telling the joyful inmates that they must stay in place for the time being, and must under no circumstances interfere with the combat troops pursuing the enemy. However, some combat personnel had to be detailed to keep roads and streets clear and prevent looting.

Nearing Wetzlar, Allied prisoner-of-war groups were discovered. One, consisting of approximately 1,000 officers and men, was in a camp which seemed in good order; the German guards had already surrendered their arms to the prisoners and an American colonel had taken charge. It was merely necessary to report the location of the camp and continue the advance. Another group of liberated prisoners was more of a problem; a patrol found 300 American soldiers crowded into boxcars on a railroad siding, so ill from malnutrition that the entire medical facilities of the combat team were required to evacuate them.

When the 7th Armored's leading tank units attempted to enter Wetzlar they drew heavy fire and after losing four tanks, they detoured the city. Two battalions of the 393d Infantry then attacked and entered the city, capturing the Leitz camera factory barely ahead of a special detachment

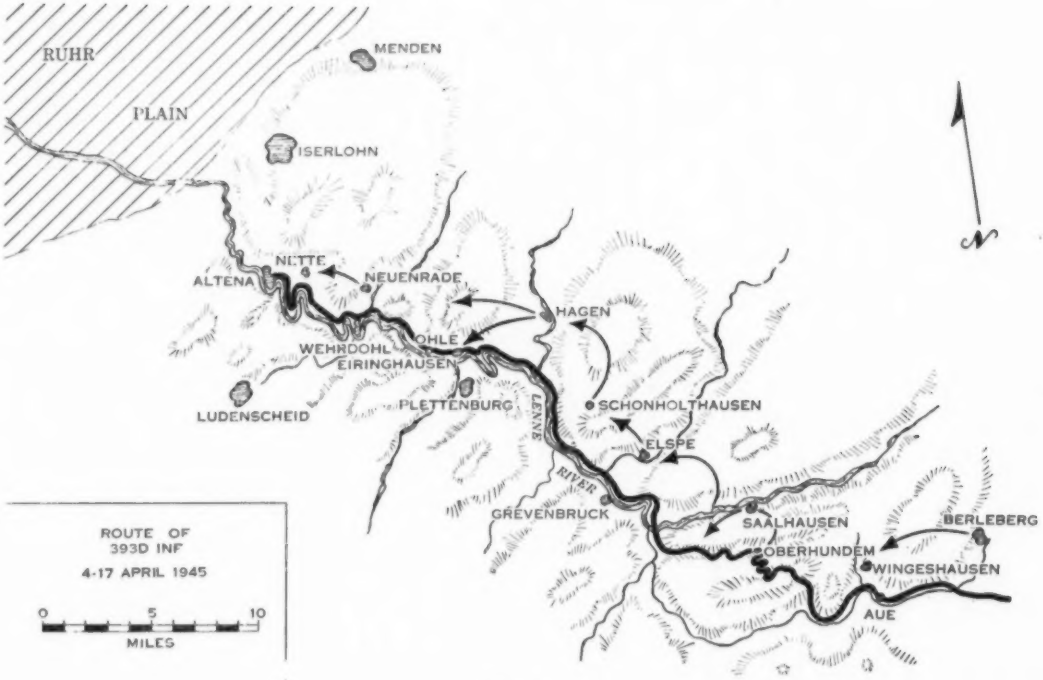
of First Army military police. At this time the regiment's right flank, resting on the Lahn River, was 16,000 yards ahead of the adjacent unit in V Corps, which had taken Limburg. The intelligence and reconnaissance platoon and a mechanized cavalry troop were used to secure the open flank.

Closely following the leading units, the battalion and regimental commanders operated from march command posts, each consisting of a small staff group and essential radio vehicles. In rear command posts, moving by bounds, representatives coordinated resupply, evacuation of prisoners, and other administrative activities. They received general instructions and information by radio from the forward echelon.

The advance continued at night to follow the armored columns. Although messengers and liaison officers in single vehicles found night movement hazardous, motor columns received little enemy interference. In one village occupied at night by the regimental command post, over 200 prisoners were rounded up by daylight. The situation was hazy but the pursuing troops held the initiative and the enemy was more and more confused and less able to act.

After the capture of Wetzlar and Giessen, III Corps turned north to participate in the vast turning movement that encircled the Ruhr industrial area. This movement was completed on 1 April when First and Ninth Army units met in the north. Then III Corps was directed to turn again and drive directly into the heart of the Ruhr over rugged, mountainous terrain.

In this drive northwest toward the Rhine, infantry spearheaded the pursuit because the terrain was unsuitable for armored units. Even the small attached armored units were greatly restricted by steep hills, narrow roads, and a great number of roadblocks and destroyed bridges. Defiles were defended by large numbers of enemy antiaircraft guns moved from the Ruhr factory towns, and their fire was highly effective against personnel and vehicles which had to move down long forward slopes through many terrain compartments. On 4 April snow covered the 2700-foot hills


RUHR
PLAIN
MENDEN
ISERLOHN
ALTENA
NETTE
NEUENRADE
HAGEN
OHLE
WEHRDOHL
EIRINGHAUSEN
LUDENSCHEID
PLETTENBURG
LENNE
RIVER
SCHONHOLTHAUSEN
ELSPE
GREVENBRUCK
SAALHAUSEN
BERLEBERG
OBERHUNDEM
WINGESHAUSEN
AUE
ROUTE OF
393D INF
4-17 APRIL 1945
0
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MILES

Map 3.

around Berleberg where the 393d Infantry passed through a regiment of the 9th Division (see Map 3).

As the attack was continued, rapid envelopment of hastily organized enemy defenses, although exhausting, brought repeated success. Battalions operated independently much of the time with only radio contact with adjacent and higher units. From Berleberg a series of high ridges had to be crossed to reach the Lenne River. While the 2d Battalion was involved in hard fighting at Aue, the 3d Battalion made a wide envelopment over terrain impassable to vehicles, to take Wingeshausen. Then with the aid of an air strike the 1st and 2d Battalions drove the enemy from the hills defending Oberhundem, but ran into heavy fire from antiaircraft guns on the ridge beyond the town. Again, after the 3d Battalion climbed nearly 1,500 feet in a night movement over the ridge at Saalhausen and attacked the enemy from the rear, the encircled defenses collapsed.

The division's advance was directed toward Iserlohn, on the edge of the hills overlooking the Ruhr plain. After crossing the Lenne, the division (and corps) left flank followed the river. Unit commanders in the 393d Infantry, advancing in the left half of the division zone, had only the vaguest knowledge of the general situation at this time. It was learned later that strong German forces inside the Ruhr pocket had made an unsuccessful attempt to break out to the south. III Corps, cutting behind this force, was met by desperate resistance as the German units pulled back to the high ground around Iserlohn and Menden for a last-ditch stand.

INFANTRY BATTALIONS IN PURSUIT

Along the Lenne River the 393d Infantry maintained a rapid advance against disorganized resistance, employing the same tactics on the battalion level as had been applied by the corps. While one battalion, with heavy fire support, advanced along the river road and exerted direct pressure against each point of resistance, the other battalions climbed to the ridges and successively enveloped each objective. Elspe, Schonholthausen, Hagen, and the intervening high

ground were taken in this manner. As an enveloping battalion cut back toward the river to encircle the enemy, a fresh battalion moved into position to make the next envelopment. The rotation of battalions was necessary to offset the increasing exhaustion of the troops maneuvering over the rough terrain. Contact with units south of the Lenne River was almost nonexistent; the right flank elements of the adjacent division were known to be well to the rear. The regimental intelligence and reconnaissance platoon crossed the river and reported enemy defending Plettenberg and Ludenscheid, but as all bridges over the Lenne were blown the left flank was considered fairly secure.

The 3d Battalion on the river road encountered strong defenses including tanks and antiaircraft guns at Eiringhausen. Demolitions had destroyed the road a mile or so short of the town and it was necessary to bring the tanks and other supporting units through a railroad tunnel in order to support the advance of rifle units into the town. After some house-to-house fighting the town was cleared as darkness fell. Most of the enemy withdrew.

The battalion commander, in an effort to maintain contact and prevent the enemy from establishing a new position, dispatched a rifle platoon from Company L as a combat patrol. The patrol, under an aggressive platoon leader, advanced to Ohle during the night and gained the near edge of the town. At daylight the remainder of Company L, with tank support, entered and captured the town.

Beyond Ohle resistance stiffened. Troops continued to make slow progress on the river road, where defended roadblocks were encountered every mile or so. The same general method was used for the reduction of each roadblock. One rifle company, clearing the ground that rose steeply on the right of the road, would envelop the roadblock. On the road, one rifle company with attached tanks would engage the defenders frontally while riflemen and rocket launcher teams worked into position to fire on the hostile tanks or antitank guns covering the barrier. As soon as the enemy was forced to withdraw, riflemen pushed ahead. The attached engineer platoon, assisted by a tank-dozer,

destroyed the obstacle and the tanks rolled forward to rejoin the rifle company. The reserve rifle company rounded up prisoners and moved forward on any available transportation.

Even though companies were rotated in reserve, the riflemen were approaching the limit of physical endurance as they had been almost continuously in action since the attack had jumped off over three weeks before. In order to provide periodic rest, the reserve company displaced forward on vehicles. Having no organic vehicles available, they used captured vehicles.

Company M used two captured 120-mm mortars, whose added range was valuable in terrain which often restricted the movement of vehicles. Ammunition for these mortars was easily replenished from abandoned enemy stocks.

The final action in the 393d's advance came near Altena. On the high ground a few miles east of the town, the 1st and 2d Battalions were faced with stiff resistance. The 3d Battalion, after capturing two Mark VI tanks with crews, made a rapid advance down the river road and entered Altena through a railroad tunnel.

A large number of disorganized German troops found in the town were taken prisoner. Companies I and L pushed to the northwest outskirts of the town while K Company evacuated prisoners. L Company engaged a group of resisting SS soldiers who were manning several 88-mm antiaircraft guns, but the Germans were dispersed with artillery fire.

When the battalion entered Altena all outside radio communication was cut off by the high hill mass immediately to the east. The regimental wire team had been outdistanced. The battalion's artillery liaison officer, taking his ¼-ton truck up the hillside to reestablish radio contact, was taken prisoner and conducted to the command post of the 130th Panzer Lehr Division in Nette, about 1 mile east of Altena. The German division commander, realizing that his troops were surrounded, informed the liaison officer that he wished to negotiate for surrender with the American commandant. The artillery officer radioed this information to the battalion commander, who being the highest American

commander available, accepted the surrender of the division. This brought the battalion's total bag of prisoners for the day to 12,000.

The surrender also halted the resistance in front of the 1st Battalion and it moved into Altena the next morning. The 2d Battalion mopped up to the north, taking numerous prisoners.

SUMMARY

The foregoing account is one example of successful application of the principles of the pursuit. It illustrates that:

When the pursuit is launched, every effort is made and every expedient used to maintain a rapid advance and hold the initiative.

Frontal pressure alone is usually indecisive. Rapid maneuver to envelop or encircle the retreating enemy creates the opportunity to capture or destroy the hostile force.

The need for rapid and sustained movement during pursuit taxes infantry to the limit of its physical endurance. However, troops are repaid in the quick capture of objectives, with minimum casualties. Conversely, relaxation of the merciless pressure gives the enemy time to reorganize and the attacker must pay a higher toll for each objective.

When the enemy is confused, the sudden appearance of troops in his rear tends to cause panic and usually turns his withdrawal into a route, therefore an encircling unit can afford to be less concerned over the exposure of its own flanks and rear.

Pursuit creates a fluid situation in which centralized control is ineffective. Small-unit commanders, through leadership, initiative, aggressiveness, and a high degree of calculated risk, insure success through forceful exploitation of each opportunity for decisive movement and action.

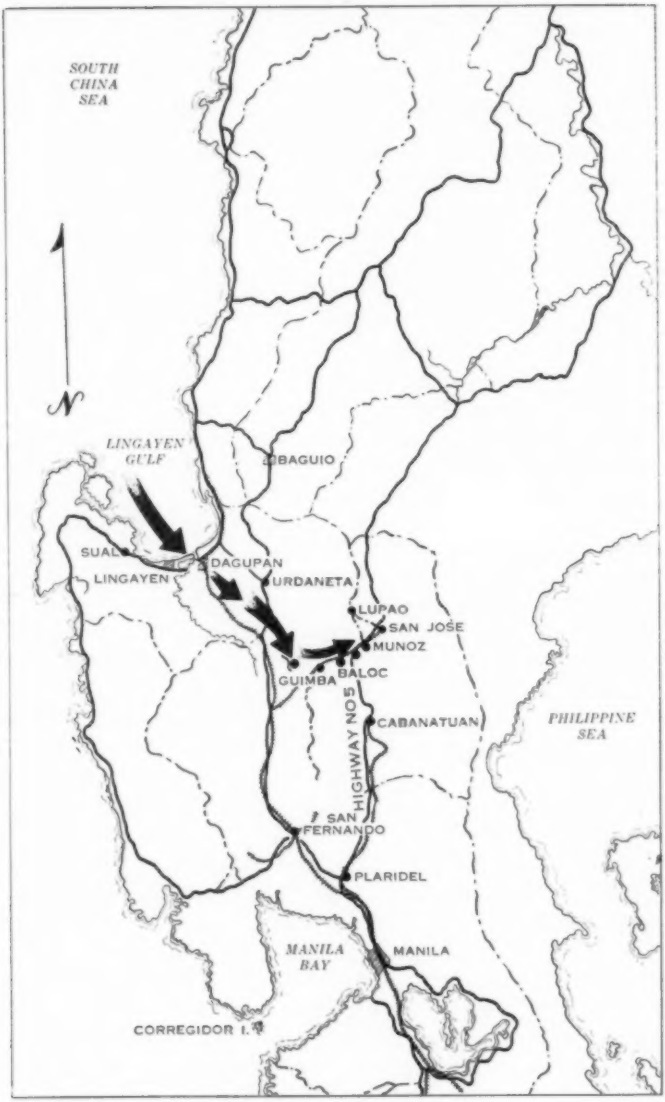
Infantry vs Dug-In Armor

Sweltering under the midday Philippine sun, the long column of men plodded along the 2-foot railroad embankment. Most of them kept their eyes on the narrowly spaced railroad ties, shortening their step so they wouldn't have to walk on the loose gravel. The scouts 300 yards ahead of the column and the flank guards 500 yards out in the open rice paddies vainly searched for signs of enemy activity.

"This may be just another false alarm," the company commander explained to a platoon leader as they walked forward to where the advanced guard had halted. "Ever since D-Day we've been liberating barrios from squads of hungry Japs. But play it smart! Move along the right side of the railroad embankment, go through the rice mill buildings, and then go into the town through the patch of woods on the left."

The town was Munoz, a small barrio located along the main Luzon highway running north from Manila. In many respects Munoz was just like other Filipino towns that had been hit by the pre-invasion aerial bombardment. In addition to the two concrete rice mill buildings, there was a stone schoolhouse, a market square, and the scattered ruins of many tin covered nipa huts. In one way, however, Munoz was unique: in the ruins the Japanese concentrated a heavily reinforced armored regiment with instructions to defend to the last man.

Early in the Luzon campaign it became apparent that the Japanese intended to pull back into the mountains rather than defend the central plains. In order to withdraw their forces from Manila and consolidate them in the mountains to the north, the Japanese had to maintain control of Highway 5. In an all out effort to keep their route of withdrawal open, the Japanese used the only armored division in the Philippines as a gigantic roadblock in the Munoz-Lupao-San Jose triangle. (See Map 1.)


SOUTH CHINA SEA
N
LINGAYEN GULF
BAGUIO
SUAL
DAGUPAN
LINGAYEN
URDANETA
LUPAO
SAN JOSE
MUNOZ
GUIMBA
BALOC
HIGHWAY NO 5
CABANATUAN
PHILIPPINE SEA
SAN FERNANDO
PLARIDEL
MANILA BAY
MANILA
CORREGIDOR I.

Map 1.

By any standards Munoz was a good defensive position. Except for the railroad track skirting the southern edge and the shallow drainage ditches lining the streets, the town was on table-top terrain. The drainage ditch running through the center of the town became, on the western edge, a ravine about 15 feet deep and 30 feet wide and lined with scrubby undergrowth. Approaches to the town were open on all sides, offering excellent observation and limiting cover and concealment. The many small trees on the west and north edges of the town were of considerable tactical value to the defender.

Concentrated in Munoz was a Japanese tank regiment strongly reinforced with artillery, infantry, and other supporting groups. Occupying defensive positions in an area some 1,400 yards long and 600 yards wide, with their armor and artillery concentrated in an area approximately 300 by 400 yards, they presented a formidable obstacle. Not only was their equipment—tanks, 47-mm guns, and 105-mm artillery—of the latest and best Japanese design, but supplies were plentiful.

In setting up their armored defense the Japanese purposely and thoroughly ignored the orthodox method of employing armor and artillery. They forfeited the mobility and shock effect of tanks by forming them in a perimeter and digging them hull deep into the ground, and they placed their 105-mm howitzers on the outside perimeter, directly in the front lines. Three weapons actually had fields of fire of less than 50 yards because they were dug in the side of an incline and pointed upward across a ravine. Supporting infantry was dug-in along the tank perimeter.

Approaching Munoz along the railroad embankment was K Company, 20th Infantry (6th Infantry Division). During the three weeks since the D-day landing on 9 January 1945, the 20th Infantry had advanced against comparatively light opposition, for although the 1st and 3d Battalions had gained considerable ground, "liberated" a number of barrios, and flushed a number of isolated Japanese groups, they had not yet met the enemy in strength. The 2d Battalion had engaged a force of 1,600 entrenched enemy in the Cabaruan Hills and had destroyed them in a bitter nine-day fight.

On 30 January the regiment was bivouacked in the vicinity of Guimba when the division commander ordered a reconnaissance of Munoz. Within an hour, K Company moved out with instructions to seize and hold the town.

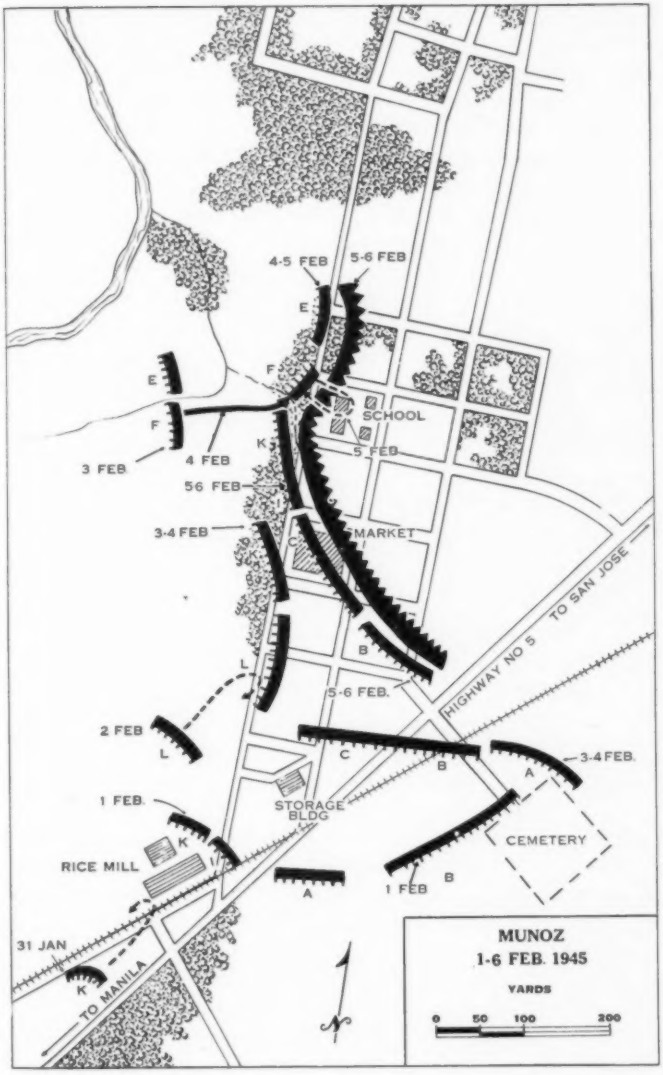
The platoon leader who had been instructed to "play it smart" followed the scouts as they advanced along the south side of the 2-foot railroad embankment. Because the embankment leveled off about 200 yards from the rice mill, the advance to the rice mill had to be made across open ground. (See Map 2). When the scouts attempted to dash across to the buildings, enemy machine guns opened fire wounding both of them. Under cover of mortar smoke the casualties were recovered and the men crawled back to the cover of the embankment.

During the day patrols were sent out to probe the town from various directions. Each patrol met with practically the same fate. After moving out into the open rice fields, enemy machine guns pinned them down and they were unable to observe any activity except the few shots directed at them. Although they encountered nothing more potent than machine gun fire, none of the K Company patrols succeeded in entering the town.

During the afternoon, an artillery liaison pilot reported that there were many tank tracks criss-crossing throughout the town but that there was no visible activity. As a precautionary measure harassing fires were placed on the town during the night.

A night reconnaissance patrol sent out by K Company on the night of 30 January fared no better than the daylight patrols, for when they were about 100 yards from the rice mill the enemy lit several flares and opened fire with machine guns. Two men were wounded and the patrol withdrew. Still the enemy had disclosed no fire power greater than heavy machine guns.

On the morning of 31 January K Company, following a brief artillery preparation, attacked Munoz from a position astride the railroad, and moved without opposition to within 200 yards of the rice mill (see Map 2). The assault platoons tried to rush the stone building but they were stopped short


4-5 FEB
5-6 FEB
E
F
E
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SCHOOL
K
5 FEB
3 FEB
4 FEB
56 FEB
3-4 FEB
MARKET
HIGHWAY NO 5 TO SAN JOSE
B
L
5-6 FEB.
2 FEB
L
C
B
A
3-4 FEB.
1 FEB.
STORAGE BLDG
K
RICE MILL
A
1 FEB
B
CEMETERY
31 JAN
K
TO MANILA
MUNOZ
1-6 FEB. 1945
YARDS
0 50 100 200

Map 2.

by a hail of machine-gun fire from debris-covered emplacements near and within the buildings. K Company mortars and machine guns fired on the known hostile weapons emplacements, but enemy fire continued to pin the assault platoons to the ground.

The artillery observer with K Company adjusted 105-mm fire on the known emplacements, but since these were concealed by debris and piles of tin it was difficult to determine whether the fire was effective.

Rather than leave the assault platoons out in the open where they were receiving casualties, the company commander decided to pull his assault platoons back to take advantage of the cover afforded by the railroad embankment. When the artillery fired a barrage of smoke to protect the withdrawal, the Japanese answered with a hail of automatic fire from hitherto undisclosed flanking positions north of the rice mill. Even though concealed by the smoke, K Company suffered a few casualties as they withdrew.

Although a reconnaissance in force by K Company failed to disclose the strength of the hostile position at Munoz, it did show that the town was not a company-size objective.

On the afternoon of 31 January the remainder of the 3d Battalion and an attached platoon of 4.2-inch mortars moved to an assembly area 200 yards south of the K Company position, and the remainder of the 20th Infantry prepared to join the attack the next day.

THE SEIGE OF MUNOZ BEGINS

Following a 15-minute artillery preparation at 0745 on 1 February, the 3d Battalion attacked toward the rice mill. With K Company on the left and I Company on the right, the attacking troops advanced about 75 yards across the open ground before they came under enemy fire. At this time the enemy began to disclose the pattern of his defensive position. From positions near the storage building (see Map 2), artillery fire and 47-mm fire from dug-in tanks stopped the assault platoons short of the rice mill; from the woods west of the town, automatic weapons sprayed the open area; and from the second floor of the rice mill,

hostile snipers and machine gunners lashed the exposed troops with fire.

The battalion commander immediately called for screening artillery smoke on the rice mill and ordered the companies to assault the two buildings. At first it was impossible to tell whether the assault was successful, because the smoke rounds formed a pattern around the assault troops and the buildings. After a half-hour fight inside the mill, however, the enemy troops were destroyed.

Out of the hail of enemy fire observers were able to definitely locate two tanks and a field piece in the area east of the storage building. Artillery and mortars made precision adjustments on these positions and eventually destroyed both of the dug-in tanks.

The assault companies mopped up the enemy in and around the buildings but they were unable to advance toward the town.

In order to divert some of the hostile fire power, the regimental commander ordered the 1st Battalion to attack on the right of the 3d Battalion. At 0930 the 1st Battalion advanced through the thin growth of trees along the south side of the highway to get in position to hit Munoz from the south.

A Company reached a point on line with the 3d Battalion's right flank before they were stopped by hostile fire from the cemetery and the storage building.

B Company swung wide to the south through the rice field in an effort to avoid the hostile fire from the cemetery, but they too were pinned down in the open.

During this action the A Company commander spotted a defiladed enemy tank which was firing at B Company. Crawling to within 35 yards of the tank, he fired an AT grenade from his carbine and scored a direct hit, setting the tank on fire. The crewmen while attempting to escape, were killed by A Company riflemen, but a machine gun near the tank wounded the A Company commander.

With the defiladed enemy tank out of the picture, the 1st Battalion's attack continued. Supported by fire from A Company, B Company pushed slowly through the cemetery, suffering numerous casualties but destroying a number of

enemy automatic weapons as they advanced. By dusk the 1st Battalion had cleared the cemetery and their left flank was in contact with the 3d Battalion's right flank.

No patrols were sent out during the night because of bright moonlight and enemy activity.

Thus the stage was set for the assault. Only 200 yards of wide open ground lay between the attacker and the defender. Already the 20th Infantry had suffered a number of casualties and the defenders had lost at least three tanks, an artillery piece, and a number of automatic weapons. Although the enemy had not yet disclosed the full strength of his defensive fire power, it was known by this time that the 20th Infantry was facing elements of the Japanese 2d Armored Division.

Two battalions of division artillery moved into position to support the attack on Munoz and three battalions of corps artillery were prepared to reinforce the division artillery.

At 0700 2 February the regiment launched a coordinated attack. Following a 15-minute preparation by five battalions of artillery, the 1st and 3d Battalions made short advances before they were halted in the open rice fields by heavy fire from close range. The fires of five artillery battalions again rained down in the Munoz area, but the dug-in enemy continued to fire. Since neither battalion was able to advance, the next few hours were spent in adjusting precision fires on enemy tanks. One tank was set on fire and two othere were put out of action.

Just before noon, three enemy tanks emplaced 300 yards north of the cemetery moved out of their positions to escape from the precision fires and were destroyed by bazookamen and 37-mm antitank guns.

On the afternoon of 2 February L Company riflemen definitely located two adjacent hostile tanks. White phosphorus shells were adjusted on the tanks, and within a few minutes both of them were on fire. Following this stroke of luck L Company immediately launched a company attack toward the burning tanks, hoping to catch the enemy before they could reinforce their line. Several riflemen actually

rushed to within a few yards of a 105-mm howitzer before the attack was stopped by enemy machine gun fire.

The unsuccessful L Company attack proved to be very costly. Several men were wounded in the assault across the open ground, and during the remainder of the afternoon continued efforts were made to evacuate them; this proved to be an error, for the company actually sustained more casualties trying to evacuate the wounded than they had received in the attack.

One of the casualties who managed to crawl back to friendly lines under cover of darkness reported that the enemy line included tanks, 105-mm artillery, machine guns, and riflemen—all in dug-in positions. The discouraging part of his report was that just at dark the enemy had replaced the destroyed tanks, and the position in front of L Company was again as strong as it had been before the two tanks were destroyed.

Although no ground was gained during the fighting on 2 February, the regiment had gained valuable information about hostile dispositions and about fighting in wide open terrain.

During the night the 2d Battalion moved into position on the left rear of the 3d Battalion and prepared to join the attack on Munoz the following morning.

At 0730 on 3 February the concentrated fires of five battalions of artillery and one company of 4.2-inch mortars rained down on Munoz and for 30 minutes continued to soften the enemy position. Then at 0800 the 1st and 3d Battalions attacked to the north, while the 2d Battalion with two companies abreast, swung wide around the 3d Battalion's left rear and hit Munoz from the west. At dusk the two companies were still 100 yards from the west edge of the town under heavy fire from dug-in positions west of the school.

In the 1st Battalion zone, two C Company platoons pushed across the highway and captured the storage building. B Company made a short advance but was unable to cross the highway.

The 3d Battalion scored the greatest gain of the day by breaking through the enemy's first line of defense. Under

cover of artillery smoke, the assault platoons rushed across the open ground and closed with the enemy in his dug-in emplacements. Using hand grenades and in some cases bayonets, they managed to penetrate, fan out, and disrupt a 300-yard segment of the armored perimeter. In this area they destroyed six medium tanks, two 105-howiitzers, and two 47-mm antitank guns, all covered by machine guns and riflemen.

Breaking through the hostile first line of defense, however, was no cause for jubilation. It soon appeared that the enemy had a second line very similar to the first and possibly even stronger. The regiment's advances on 3 February left no doubt as to the strength of the enemy; however, it did show that the enemy was beginning to break under repeated attacks and artillery fires.

While the 20th Infantry was attacking Munoz the 63d Infantry was committed to isolate the defenders by cutting Highway 5 four miles northeast of Munoz. The regiment met with stiff resistance, but overcame it by dusk on 4 February and set up a roadblock on Highway 5 to completely isolate the enemy armored force. (See Map 3.)

On the morning of 4 February the 20th Infantry resumed its attack on Munoz. The 1st and 3d Battalions made only short advances during the day; however, under cover of mortar smoke small patrols worked up close enough to adjust fire on hostile tanks and artillery pieces.

By this time both artillery and mortar observers had learned that white phosphorus was the most effective shell against a dug-in tank. Direct HE hits on the emplacements did not destroy the tanks, but even close misses with white phosphorus sometimes set the tanks on fire.

The 2d Battalion's attack along the west edge of the town met with some success. Initially they were stopped by the same enemy pillboxes which had held them up on the previous day. About 1500, however, Technical Sergeant Donald E. Rudolph of E Company initiated a one-man assault. Dashing across the open to the enemy weapons emplacements, he threw a grenade through the embrasure of a machine gun emplacement and with his hands tore away

the tin and wood covering so he could fire a burst of submachine gun fire into the hole. Supported by fire from riflemen, he continued down the line of emplacements, first tearing away the tin covering and then dropping grenades or firing into the hole. Within a few minutes he neutralized the eight emplacements that had held up the attack for almost two days. Sergeant Rudolph was awarded the Congressional Medal of Honor for this action, and for his subsequent display of leadership was given a battlefield commission.

Spurred on by Rudolph's action the 2d Battalion flanked the enemy line and by nightfall they held a line parallel to the westernmost north-south road (see Map 2).

Throughout the night artillery and mortar concentrations pounded enemy positions within the town. (It was later learned that the Japanese commander of the Munoz forces was killed by artillery fire during this night.) Small Japanese patrols made several banzai attacks but all of the attackers were quickly killed by alert infantrymen.

On the morning of 5 February the regiment continued the attack on Munoz with the 1st Battalion attempting to push to the northeast, the 3d Battalion to the north through the wooded area, and the 2d Battalion to the east.

The 1st Battalion made some progress. C Company advanced to the south side of the market square and B Company made a similar advance.

The 3d Battalion, squeezed down to a narrow front by the shift in direction, made little forward progress. The leading elements of I and K Companies were faced by a ravine about 30 feet wide and 15 feet deep. Dug into the hostile side of this ravine was the enemy's second line of defense, which like the first line consisted of mutually supporting tanks, artillery pieces, and machine guns. Many efforts to infiltrate troops across the ravine and into the hostile position proved costly failures.

The 2d Battalion achieved the greatest advance for the day, although it almost ended in disaster. Pushing determinedly against tough enemy resistance, the battalion attacked toward the school. When the assault companies had gained about 75 yards the enemy counterattacked from the

north with four tanks and a platoon of riflemen. The tank attack pierced the rear of the 2d Battalion and restored the hostile line along the west edge of the town, thus separating the battalion from its reserve company. At the same time enemy troops on the eastern edge of the town engaged the 2d Battalion from the front.

Because of the proximity of the enemy the 2d Battalion was unable to adjust artillery fire on the hostile troops, and because of the obscurity of the situation the 1st and 3d Battalions were unable to fire in support of the 2d Battalion for fear of hitting them.

To get out of a difficult situation E and F Companies reversed direction and fought their way back through the counterattacking hostile troops. Although both companies suffered many casualties—E Company coming under command of its 1st Sergeant—the wounded were successfully evacuated.

While the 2d Battalion was fighting its way out of the Japanese perimeter, the counterattack launched by the Japanese tanks continued. Traveling almost at maximum speed, four enemy tanks in column raced south along the asphalt road. About 30 yards from the right flank of I Company the leading tank hit a mine which had been laid on the road the previous night. The tracks were blown off the tank but its momentum carried it another 20 yards on its bogey wheels. At a range of 10 yards a 37-mm gun from the 3d Battalion position destroyed it, and the other tanks spun about and returned to the north.

A self-propelled mount rapidly moved into position to engage the withdrawing tanks, but before it could fire a single round it was set on fire by a hitherto undisclosed 47-mm antitank gun. Exploding shells in the burning SPM made it necessary to pull the front lines back about 50 yards.

Again during the night artillery and mortar fire was placed on the enemy in the deep draw facing the 3d Battalion.

On the morning of 6 February all weapons delivered the heaviest preparation to date. Following the 30-minute preparation the 1st and 3d Battalions again attempted to rush across the 50 to 80 yards that separated the defender

from the attacker, only to be stopped cold almost as soon as they left their foxholes. Although 36 tanks had been knocked out the Japanese still had plenty of firepower and two-thirds of the town. An intelligence report correctly estimated that about 20 tanks and 4 artillery pieces still remained; however, the report optimistically concluded, "the force is completely isolated."

This attack soon degenerated to a monotonous repetition of the previous attacks. Company attacks, platoon attacks, combat patrols, and individual rushes met with slight success. Observers continued to search for tanks and adjust precision fires.

At about 1000 an enemy tank left its dug-in emplacement near the market square and dashed down the road toward B Company. As the Japanese tank approached the company CP it fired at a range of 25 yards, killing the company commander, the supply sergeant, and a radio operator. The hostile tank was immediately destroyed by an antitank gun.

During the afternoon of 6 February the division commander, the chief of staff, and the G-3, acting against the advice of a battalion commander, moved forward to a 3d Battalion Observation Post located in a well-constructed Japanese dug-out about 25 yards behind the front lines. Noting the unusual activity, the Japanese fired 105-mm howitzers into the trees above the position, but because of the effectiveness of the Japanese-made dug-out, no one was injured.

Based on first hand observation of the Munoz situation, the division commander and the regimental commander agreed that a Napalm (fire bomb) air strike should be made on Munoz the next day.

In accordance with this plan the 20th Infantry was to withdraw to a line south of the railroad just before daylight on 7 February, leaving a covering force from C Company and I Company in contact with the enemy until 1030. The air strike was scheduled for 1100.

Up on Highway 5 the 63d Infantry Regiment, now holding the Agricultural School area, was to move on the morning of the 7th to the southeast of Munoz. After the air strike

the 20th Infantry was to attack on the left and the 63d Infantry on the right, following a rolling barrage from the massed guns of five artillery battalions and two companies of 4.2-inch mortars. The boundary between regiments was to be the center north-south road in the town.

But the enemy, too, had plans. Between midnight and dawn the remaining enemy garrison, having lost their commander and having suffered terrific casualties, made a break for freedom.

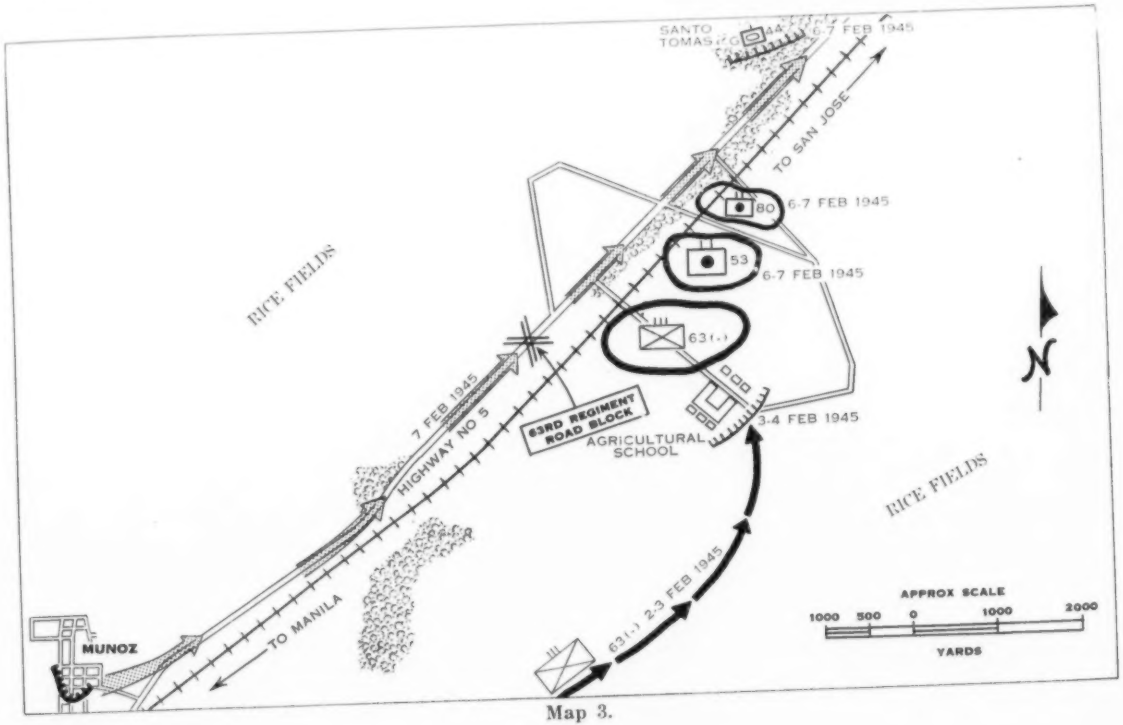
The enemy plan as later pieced together from captured documents and prisoners of war, was to evacuate under cover of darkness the remaining tanks, vehicles, and troops north along the main highway to San Jose. The withdrawal was to be screened by a diversionary attack against the 20th Infantry's front lines spearheaded by four tanks and a platoon of infantry. In spite of their excellent communications equipment, the enemy evidently did not know that American troops had captured San Jose and the Agricultural School area and now controlled Highway 5.

COUNTERATTACK

The Japanese diversion began at 0300. Accompanied by a great deal of noise all along the front, four tanks accompanied by a platoon of infantry raced down the north-south road between B and C Company. The leading tank was destroyed by a rocket launcher but the other tanks and infantry fanned out to cause as much confusion as possible. Another tank was stopped by a 37-mm antitank gun located near the storage building but the two remaining tanks reached the main highway, turned, and sped northeast. The infantrymen accompanying the tanks were destroyed by bayonets and rifles.

Alerted by the noisy Jap tanks, artillery and mortar observers called for normal barrages. Daylight revealed that this random fire had destroyed six tanks, nine trucks, and a captured US 105 Howitzer towed by a M-3 half track.

The main enemy column, preceded by tanks and truck-mounted infantry, sped toward the highway with headlights


SANTO TOMAS
6-7 FEB 1945
TO SAN JOSE
80
6-7 FEB 1945
53
6-7 FEB 1945
63(-)
RICE FIELDS
7 FEB 1945
HIGHWAY NO 5
63RD REGIMENT ROAD BLOCK
AGRICULTURAL SCHOOL
3-4 FEB 1945
RICE FIELDS
MUNOZ
TO MANILA
63(-) 2-3 FEB 1945
APPROX SCALE
1000 500 0 1000 2000
YARDS

Map 3.

blazing. As they hit the 63d Infantry roadblock at the Agricultural School they were met by a hail of 37-mm and .50 caliber fire.

Several tanks were halted at the roadblock but most of the column broke through. Two 6th Division artillery battalions located along Highway 5 engaged the enemy tanks with direct fire at point-blank range. Two artillery pieces were overrun but several tanks were destroyed at less than 30-yards range (See Map 3.)

The few vehicles and tanks which broke through the artillery battalions continued along the highway only to be entirely destroyed in a tank duel with Company G, 44th Tank Battalion, which was in a tank park north of the Agricultural School.

Daylight found the highway from Munoz to Santo Tomas littered with smoking Japanese tanks, trucks, and corpses. The entire column had been destroyed, including 10 medium tanks, 1 light tank, 10 2½-ton personnel carriers, 2 tractors, and 2 105-mm guns. A total of 247 enemy dead were counted in and around the smoking vehicles.

At 0700 on 7 February the Napalm air strike was cancelled and the 1st and 3d Battalion attacked northward through the town against the feeble resistance of a few snipers. The town was secured by 1100 and infantrymen patrolled the rice fields northeast of the town cleaning up the few scattered enemy who still remained.

ANALYSIS AND CRITICISM

The list of vehicles, weapons, and tanks destroyed in the seven day battle of Munoz reads like the Table of Equipment of the Japanese 6th Tank Regiment and its attachments:

48 medium tanks (47-mm guns)
4 light tanks (37-mm guns)
4 armored cars
2 tracked prime movers
41 trucks
1 American half track M-3
15 sedans

1 station wagon
6 105-mm howitzers
16 47-mm towed antitank guns

From documents and prisoners of war it was determined that the following units were destroyed or rendered ineffective in the Munoz area:

6th Tank Regiment (less 2d Company)		600 troops
3d Tank Brigade Headquarters		50 troops
3d Company, 2d Armored Engineers		35 troops
Antitank Battalion, 2d Armored Division		300 troops
8th Battery, 2d Mobile Artillery	(1 PW)	100 troops
356th Battalion, 103d Division	(2 PW)	800 troops
Total		1,885

The enemy dead actually counted were 1,527.

The battle of Munoz cost the attackers 97 killed and 303 wounded.

Looking back on the Battle of Munoz from the vantage point of time, one flaw stands out—the regiment did not make a single night attack against the dug-in enemy. The failure to use a night attack can be explained, but not excused, by the fact that the regiment was fresh from the New Guinea jungles where the Japanese had foolishly and repeatedly thrown themselves at perimeter defenses only to be slaughtered. Many ill-conceived and ill-fated Japanese night attacks had led to the unsound conclusion that such actions were unnecessarily hazardous and unfruitful.

At Munoz a night attack might have overcome the Japanese primary advantage—observation over several hundred yards of table-top terrain. True, it would have resulted in hand-to-hand combat on the Japanese perimeter, but it would have taken advantage of the relative ineffectiveness of tanks at night. Sufficient information to permit excellent artillery and mortar support of a night attack was available any time after 3 February.

It might be argued that the bulk of our forces should have attacked from the north to hit the rear of the enemy's defense. However, the enemy could defend just as effectively from the north as from any other direction, for tank and artillery positions were prepared in a complete perimeter

and the approaches from the north and east were even more open than from the south and west.

Since air support was available on call, a Napalm air strike should have been requested on 3 February immediately after the strength of the enemy was determined.

Employment of tanks and SPMs from exposed positions proved costly. They were no match for the well-concealed and well-emplaced enemy tanks and guns.

On 5 February when the 2d Battalion broke through the west edge of the enemy perimeter, some riflemen from the 1st Battalion fired at them, not knowing that they were friendly troops. To correct the situation both the 1st and 3d Battalions ceased firing until all their troops could be oriented on the 2d Battalion's advance. This resulted in lack of support to the 2d Battalion at a critical time. In maneuvering friendly forces, especially in flanking actions, it is imperative that all units know the scheme of maneuver.

SUMMARY OF LESSONS LEARNED

Some of the lessons to be learned from this operation are:

1. Massed artillery and mortar fires are not very effective against dug-in tanks and field pieces. Precision adjustment with 4.2-inch mortars firing white phosphorus shells is the best means of destroying such targets.

2. Tanks must have cover to operate against dug-in tanks.

3. When attacking a well prepared defensive position, many small patrols should be used to feel out the enemy. Small patrols can initially gain more information than large ones.

4. Rocket launchers and antitank grenades will destroy medium tanks; however, the gunners must be protected by riflemen.

5. Recovery of casualties who are exposed to accurate small-arms fire can be made under cover of smoke or darkness; supporting small-arms fire, however, does not provide sufficient protection for the evacuation party. In units where esprit is particularly high commanders must sometimes prohibit courageous men from making foolish efforts in the face of hostile fire.

Night Attacks

Less than a decade ago the night attack was regarded as an extremely difficult and hazardous maneuver whose probability of success was so limited that it possessed little tactical value; however, as the lessons of the war were analyzed this view was radically modified. Experience has proven that a properly planned and well executed night attack is an effective method of securing a limited objective at a small cost in both time and casualties.

An outstanding example of the effectiveness of a large scale night attack is the battle of El Alamein, during which the British under General Montgomery used an entire army in one of the most carefully planned night attacks in history to smash the Afrika Corps and start the Germans on the road to ultimate collapse in North Africa. As a British officer described the operation: "At 2200 (23 October 1942) 100,000 bayonets left positions along a 20-mile front behind a curtain of fire from nearly 1,600 guns to assault the German positions, while close by, 1,100 tanks waited for the signal that the enemy mine fields had been breached. The Royal Air Force waited to join the show again at daylight."

In all theaters night attacks involving infantry companies and battalions became routine once the advantages were realized. This was especially true in Italy where the topography of the Italian peninsula had been exploited by the Germans to organize strong defenses. In the Cassino-Venafro area in Southern Italy, for example, one American infantry division actually conducted at night more than half of its total combat. It must be remembered, however, that at both Cassino and Anzio the enemy had superior observation, and daylight movement by Allied troops was dangerous. Also, with few exceptions, Allied operations during the four-month Anzio stalemate were confined to patrolling and artillery firing.

In later stages of the pursuit across France into Germany, night combat became a combination of infiltration and night attack. When a gap was located in the enemy lines the advancing unit moved through it at night to its objective. If the enemy discovered the movement the unit would either assault the objective or bypass it and continue to another objective. The enemy positions thus isolated were mopped up by reserves. Similar situations over a broad front prevented the enemy from reinforcing his defensive positions and forced him to employ his reserves in a piecemeal fashion.

PURPOSE OF THE NIGHT ATTACK

A night attack is normally a limited objective attack on an enemy position against which the attacker desires to apply continuous pressure, or which must be approached over terrain so open as to make a daylight attack too costly. Night attacks are made to exploit success, to take advantageous terrain, to avoid heavy losses, or to deceive the enemy.

To exploit success. A success gained during daylight may often be exploited by continuing the offensive at night against a selected objective. Similarly, when a daylight attack is only partially successful, victory can often be made complete by a night attack. Continuous day and night pressure keeps the defender off balance and denies him an opportunity to reorganize or to establish effective defenses in depth.

To gain important terrain. A night attack may be made to gain terrain which is important to future operations. Commanding ground which provides observation and firing positions may be seized in a night attack as a preliminary to a large scale attack at daylight. Thus local advantages gained at night increase the probability of success of the main attack.

To avoid heavy losses. Night attacks are frequently used to seize objectives which are surrounded by open areas. Daylight attacks over such areas often result in heavy losses, but darkness limits the defender's visibility and thus reduces the effectiveness of his fire. Darkness also provides

concealment for the attacker, thus reducing the number of casualties and increasing the chance of obtaining surprise.

To deceive the enemy. The concealed attacker can deceive the defender by moving close to the objective without detection, thus making it difficult for the defender to determine the strength and composition of the attacking force. When a large scale attack is to be launched at daylight, a night attack may be made in a different area to divert attention from the decisive area and to cause the enemy to shift his reserves. Similarly a diversionary night attack in one area may create more favorable conditions for a larger night attack in a different area.

TYPES OF NIGHT ATTACKS

According to the degree of illumination, night attacks are classified as illuminated or nonilluminated; with respect to fire support, they are classified as supported or unsupported.

In the illuminated attack seachlights, flares or any other means of artificial lighting is used; in the nonilluminated attack only natural light is used. The same tactical principles apply to both types; however, as the degree of illumination is increased the technique approaches that of a daylight attack.

The attacker increases the effectiveness of his supporting fires by using artificial light, but the defender enjoys the same advantage. Illumination increases the difficulty of achieving surprise, but if the attacker uses artificial light in several areas he still may gain surprise at the desired point.

In both the supported and unsupported attacks a detailed plan of supporting fires is made and protective fires are delivered during reorganization.

An unsupported attack is one which is designed to allow the assault unit to advance within assaulting distance of the objective without the aid of supporting fires. Supporting fires are nevertheless planned as for a supported attack, but are withheld until called for by the assault unit commander.

As a supported night attack normally is planned against a well defended position, preparatory fires are delivered to neutralize or destroy automatic weapons and communications within the defensive position. Additional supporting fires are delivered while the attacking force is advancing, the same as in a daylight attack.

In either type of attack supporting fires are registered on several areas across the front to avoid disclosing the objective. Even in a supported attack, surprise may be attained by alerting the enemy several times with preparatory fires before actually launching the attack.

CHARACTERISTICS OF A NIGHT ATTACK

A night attack is characterized by difficulty of maintaining control, contact, and direction and by a material increase in the importance of close combat and preplanned high angle supporting fires. Consequently, tactical principles are modified to compensate for reduced visibility.

Simplicity of plan. This is desirable in any type of attack, but essential in a night attack. At night only one objective is prescribed because it is difficult to reorganize after the attack, and because limited visibility prohibits adequate reconnaissance of a succeeding objective.

Limitations of maneuver. Reduced visibility makes it difficult to control maneuvering elements; consequently the entire effort against a single objective is usually made in one direction over open terrain. Attempts to combine frontal and flanking movements against the same objective at night usually result in an uncoordinated assault and possibly in two friendly forces firing at each other.

Secrecy and surprise. These factors are important in any attack but in a night attack they are practically essential. Secrecy is maintained by limiting daylight reconnaissance, by using deception, and by restricting the dissemination of information to essential personnel. Surprise is gained by skillful use of supporting fire, by advancing under the concealment of darkness to a position from which the assault may be launched, and by assaulting at an unexpected time.

TRAINING

To overcome the difficulty of maintaining control, contact, and direction under conditions of reduced visibility, troops and leaders must be well trained in night combat. Individuals are trained to move over various types of terrain and to maintain direction in darkness. Unit training is conducted to acquaint the individual with his place in the team and to teach leaders to maintain control and direction at night.

PREPARATIONS

As soon as the mission and the objective are assigned, the commander makes his initial preparations. His first action is to issue a warning order to his unit. The warning order, issued only to key leaders in order to preserve secrecy, usually is only a brief statement such as "We're making a night attack tonight. Get men and equipment ready." In response to this order, instructions in regard to secrecy, blackout, and smoking are issued, and leaders check ammunition and equipment.

When the leaders assemble, the commander orients them on the mission, the situation, and the general plan so the leaders can plan their reconnaissance. In his daylight reconnaissance the commander selects routes for movement and designates objectives and boundaries. In order to keep maximum control during darkness, he also selects an assembly area, an attack position, a line and points of departure, a release point, a probable line of deployment, and a limit of advance. (See Figures 1 and 2.)

The assembly area for a night attack has the same characteristics as an assembly area for any other attack; it should provide cover and concealment, be far enough to the rear to permit freedom of movement, and have access to a good route forward.

The attack position is located immediately in rear of the line of departure and is reconnoitered and marked to insure recognition in the dark. Cover from enemy direct-fire weapons is desirable but not essential as troops remain in this position only long enough to make last minute coordinations. Concealment of course is provided by darkness.

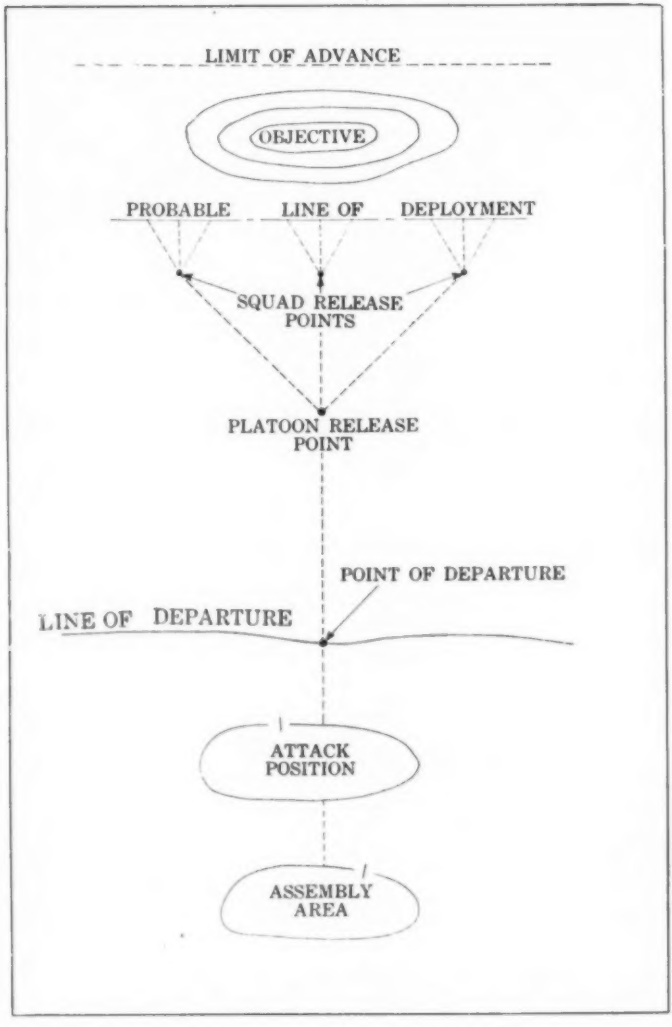


Figure 1. Night attack plan for a rifle company when the objective is relatively distant from the line of departure.

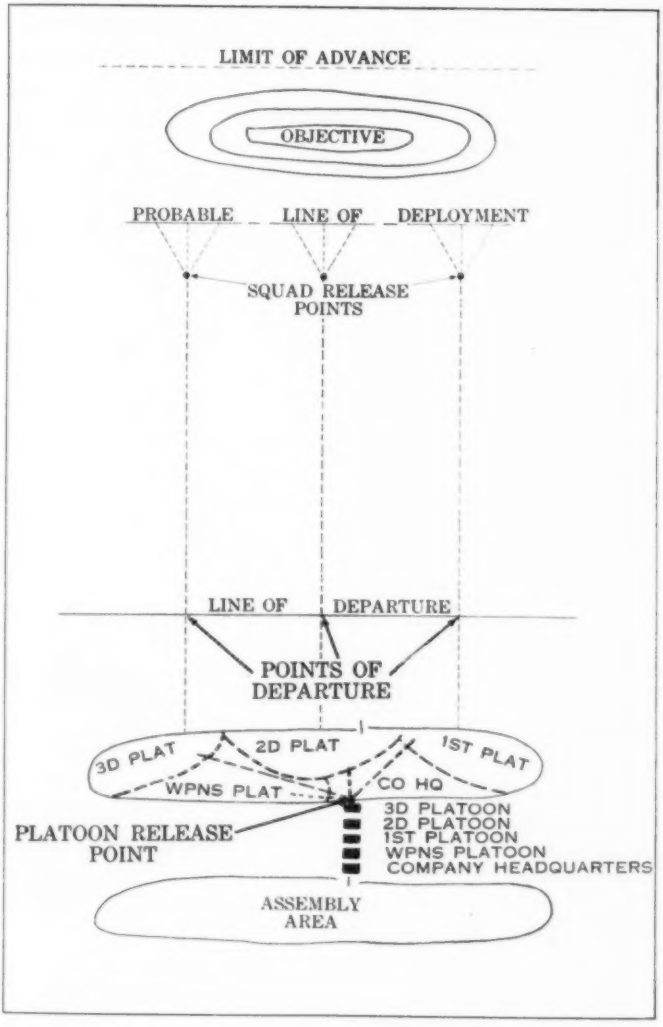


Figure 2. Night attack plan for a rifle company when the objective is close to the line of departure.

The line of departure for a night attack should have the same general characteristics as for a daylight attack: it should be perpendicular to the direction of attack and clearly recognizable on the ground; although cover from enemy direct fire is desirable, it is not necessary. The points where subordinate units cross the line of departure are designated as points of departure. They too should be easily recognizable on the ground and should be sufficiently spaced to permit deployment.

Release points are the positions on the ground where control of the forward movement passes to lower commanders. A battalion commander selects a company release point; a company commander selects a platoon release point; and a platoon leader selects a squad release point. A company release point is usually located between the battalion assembly area and the attack position. A platoon release point may be located anywhere between the battalion assembly area and the probable line of deployment--- depending on the distance the company can advance in a column formation. A squad release point is usually located very close to and on the near side of the probable line of deployment.

The probable line of deployment is a line which the attacking force hopes to reach before forming a skirmish line for the assault. It is located within assaulting distance of the objective, and if at all possible, along a terrain feature easily recognizable at night. If no such terrain feature exists, guides mark the selected line with telephone wire, engineer tape, or infrared equipment. If the front of any enemy position is covered by barbed wire, gaps are cut through the wire and troops pass through and deploy on the enemy side of the wire. Patrols are used to secure the probable line of deployment prior to the arrival of the attacking force.

A limit of advance is selected along an easily identifiable terrain feature beyond and to the flanks of the objective. The limit of advance controls the depth to which the attacking troops penetrate and keeps them from advancing into their own protective fires.

A daylight reconnaissance alone is not sufficient for planning a night attack. There is a decided difference in the appearance of terrain at day and at night; in darkness objects appear larger and terrain outlines assume unfamiliar shapes because details tend to disappear. Therefor the company commander arranges for additional reconnaissance at dusk and during the hours of darkness. Patrols are sent out immediately after dark to reconnoiter routes for movement from the line of departure to points along the probable line of deployment where the platoons are to deploy. Designated members of these patrols are used as guides when the actual attack is made. Other patrols may be sent out to determine the strength, positions, and armament of the enemy in the objective area.

PLANNING

When planning a night attack the commander needs highly detailed information of enemy forces, the contemplated action of other friendly forces, and the terrain over which the attack will be made. In addition to making a thorough reconnaissance, he also may obtain additional information from commanders of front-line units, intelligence reports, or local civilians. Frequently, he can secure first-hand information of the enemy by establishing daylight observers who study enemy positions and the intervening terrain. Aerial photos studied in conjunction with ground reconnaissance may provide a clearer picture of the terrain.

As in any attack, the commander collects all available information, evaluates it, and then decides on a specific course of action. One of his most important decisions is the selection of the route of approach to the objective.

Having selected a route of approach, he decides the time of attack, formation, zones of advance, and security measures.

Formations for a night attack must facilitate maintenance of direction and control. Usually, in rear of the line of departure a column or a line of columns is used. As successive release points are reached columns break down into

smaller columns, thus facilitating deployment into a skirmish line at the probable line of deployment. (See Figure 1.) Because of the difficulty of maneuver in darkness, companies do not hold out a support platoon; larger units, however, do hold out a reserve.

Zones of advance are marked by terrain features which can be seen at night, such as ridges, hills, large trees, gullies, roads, or ditches. The platoon which has the most easily identified route is designated as the base platoon, and contact groups are designated to maintain contact between units and to assist in regulating the rate of movement

Security is more stringent than in a daylight attack. Patrols precede the attack force to secure the probable line of deployment. Close security detachments are sent far enough to the front and flanks to prevent the main body from being surprised. As control passes to lower units, responsibility for security passes with it. Measures to keep secrecy include:

Keeping the exact time, size, and direction of the attack secret as long as practicable.

Restricting the size and activities of reconnaissance parties.

Keeping rifles loaded and locked during the movement to the line of deployment and giving instructions that fire will be opened only on specific orders.

Prohibiting smoking, lights, or unnecessary talking.

Darkening faces and hands.

Night identification may include white cloth armbands or luminous devices and a challenge and password; all men participating in the attack are informed of the means to be used.

The communication plan includes the use of messengers, wire, radio, and pyrotechnics; however, until a prescribed time or until the attack is discovered, messenger and wire are the only means used.

The time of attack is based on the mission of the unit. The commander assigning the mission usually prescribes the time but if he does not, the commander of the attacking force does.

If the purpose of the attack is to take advantage of enemy disorganization, to exploit success, or to prevent the enemy from withdrawing under the concealment of darkness, the attack is usually made in the *first* hours of darkness.

On the other hand, an attack which is to be followed by a larger daylight attack should be launched during the *last* hours of darkness. The enemy is thus given little opportunity to reorganize. If the attack is to be made during the last hours of darkness, the time of attack should be planned to allow at least one-half hour of darkness for the attacking force to reorganize on the objective.

The weapons platoon and attached supporting weapons do not normally take part in the assault but are ready to move to the objective when it is captured. Machine guns, 60-mm mortars, and 57-mm rifles may follow the assaulting echelon by bounds, but not so close that they will become involved in the assault. When movement behind the assault echelon is impracticable, the weapons initially are left behind the line of departure and are brought forward by hand or on carriers when they are needed. If the distance to the objective is short, company mortars may be placed in position behind the line of departure, prepared to deliver supporting fires on call.

To minimize confusion, reorganization after capture of the objective is planned before the attack is launched. Reorganization plans cover consolidation and security of the objective since the final phase of the attack will not be under centralized control.

ORDERS

An order for a night attack must be considerably more detailed than an order for a daylight attack as provisions must be made for all anticipated eventualities. Initially the commander issues a warning order to enable subordinates to initiate their own reconnaissance without delay. The attack order is issued after the preliminary reconnaissance has been made, yet it must be issued in time to allow dissemination to all men.

CONDUCT OF THE ATTACK

The detailed preparations for a night attack are completed in the assembly area, but last minute instructions may be issued in the attack position. The forward movement from the assembly area is begun in column with the element having the farthest distance to march leading the formation. Adequate security is established by the column commander and the rate of march is set to permit security detachments to keep pace. Guides lead units to the proper area in the attack position.

Troops normally remain in the attack position just long enough to adopt the attack formation and receive last minute instructions.

Another brief halt is made at the line of departure to insure coordination and to permit leaders to check formation. Under conditions of reduced visibility, units achieve close control by advancing from the line of departure to the previously secured probable line of deployment in either a column or a line of columns.

Each column is preceded by security elements, and connecting files keep contact between security elements. Guides who have previously participated in night patrols over the area are included in these security elements. If enemy patrols or outguards are encountered, the security elements dispose of them silently.

The leader of each column marches where he can best control his unit and regulate its advance—usually at the head. If the formation is a line of columns the leader marches near the base element.

If flares are fired before the troops reach the line of deployment men hit the ground and wait for the illumination to fade out.

As units advance they pass through one or more release points, and control passes successively to lower units. Deployment begins at these release points; and is completed when squads take up a skirmish line at the probable line of deployment.

In an unsupported night attack, if no supporting fires are to be used just before the assault, the assault is launched as soon as troops cross the probable line of deployment and adopt a skirmish line. If planned concentrations are being fired to support the assault, the lifting of these concentrations is denoted by a visual signal and the assault is then launched. Should the attack be discovered before the troops cross the probable line of deployment, troops deploy rapidly and call for planned concentrations if they are to be used.

The method of assault depends on the enemy's reaction. If the enemy has not discovered the attack, the skirmish line advances quietly from the line of deployment at a walk. When the enemy discovers the attack the assaulting troops continue forward delivering assault fire. Once the actual assault begins no halts are made for any reason, and the assaulting force takes advantage of illumination to assume a more rapid pace and to deliver more effective assault fire. All leaders make every effort to maintain the skirmish line, to prevent it from breaking into isolated groups, and to prevent halting or straggling.

Reorganization begins immediately after capture of the objective; leaders promptly establish security and coordinate defenses. Isolated elements temporarily attach themselves to the nearest unit but they rejoin their assigned unit at the first opportunity.

On the objective each commander immediately designates a reserve element, checks the security, checks the organization of the position, arranges for protective fires, and notifies the next higher commander of the situation.

Supporting weapons are brought forward to assist in holding the objective.

SUMMARY

The primary difficulties in making a night attack are maintaining contact, control, and direction. All of the detailed reconnaissance, training, and planning that precedes a night attack is directed toward overcoming these difficulties, or at least, toward minimizing their adverse effect.

As in any other operation the principles of offensive combat continue to apply, but the methods are varied in order to use darkness to the advantage of the attacker and to the disadvantage of the defender. A successful night attack must be planned in detail and executed according to plan.

A Rifle Company in Mountain Terrain

The spring of 1945 found the Fifth Army in the rugged mountains and narrow valleys of the nothern Apennines, poised along a line extending from Bologna west to the sea, waiting to renew an offensive stopped by the severe winter and the stubborn German resistance. The comparative quiet, plus news of the Allied successes in nothern Europe, gave the false impression that the campaign in Italy had settled down to a war of attrition. The period of winter stalemate, however, had ended, and the knockout blow to crush the German forces in northern Italy was at hand. (See Map 1.)

OBJECTIVE: BOLOGNA

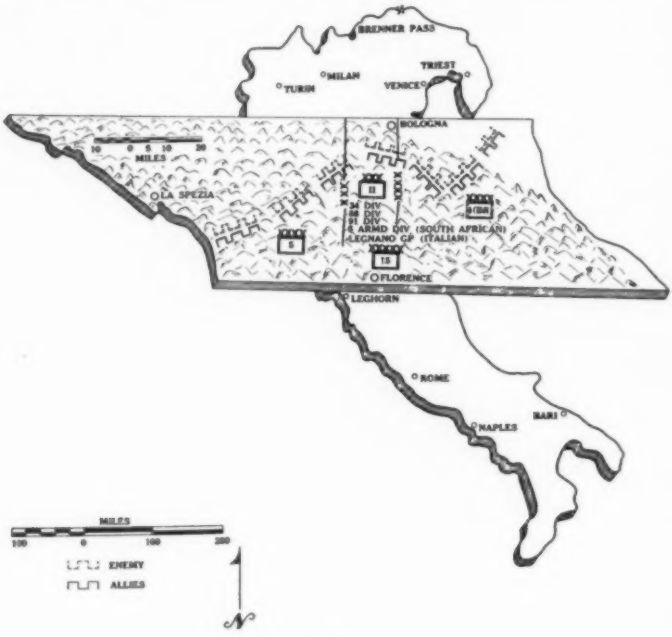
In the Fifth Army zone, the II Corps was to carry the main effort through the mountains into Bologna and the Po Valley. (See Map 1.) Bologna, the prime objective, was at the northern foot of the Apennines on the southern fringe of the Po Valley. Although individual mountains and ridges lay ahead along the II Corps front, the highest part of the Apennines had been crossed and the ground ahead sloped gradually toward the plain. From their positions the Allied troops could look out over the broad level Po Valley. Their long association with Highway 65 would end with the capture of Bologna, the nothern terminus of this route, for once they gained the town they could easily advance northward across the flatlands and make use of their armor. To the Germans the loss of Bologna would mean the loss of the entire Po Valley and the rich agricultural and industrial production that was keeping their armies in Italy supplied and equipped.

THE II CORPS PREPARES FOR D-DAY

On the II Corps west flank the 88th Division was to seize Monterumici Ridge while concurrently the 91st Division

was to capture Mount Adone to protect the 88th's attack on Mounterumici Ridge.

The importance of this ridge was emphasized by the commander of the German 8th Mountain Division who told his troops, "Mounterumici at this time is the most vital sector of the entire division. I have no doubt that the enemy will make every effort to take possession of the Mounterumici feature to obtain a basis for a large-scale attack."



Map 1

TASK OF THE 350th INFANTRY

The 350th Infantry, the 88th Division's right flank regiment, would make its initial effort against the small towns—Di Sopra, Di Sotta, La Torre, and Santa Cecilia (see Map 2). Opposing the 350th was a battalion of a German mountain regiment, occupying well-prepared

positions in Di Sopra and Di Sotta. Although these villages were completely leveled and pounded to rubble, the stone structure and the deep cellars of the houses gave the enemy strongly fortified positions. All slopes leading to the villages were covered with antipersonnel mines. The enemy had done an excellent job of organizing the ridge with an elaborate system of interlocking positions in the caves and dug-outs. To reach its objective the 350th Infantry had to attack over narrow, tortuous trails, impassable to armor, thus restricting movement to areas which the enemy could apparently cover with fire.

On arrival in the line the 1st Battalion moved into positions below Monterumici Ridge, while the 2d and 3d Battalions and the Cannon Company moved into a rear assembly area near Anconella.

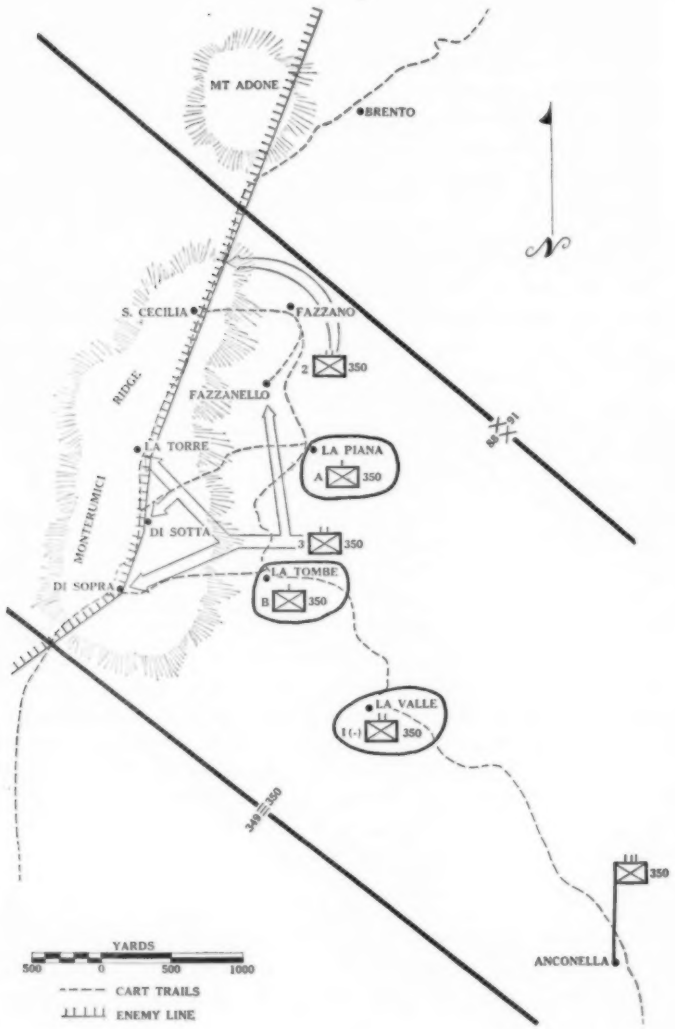
The regimental attack plan called for the 1st Battalion to hold the areas around La Tombe, La Valle, and La Piana until the jump-off, and thereafter remain there in regimental reserve. The 3d Battlion, meanwhile, was to move from Anconella to an assembly area near La Valle and prepare to attack Monterumici peak; the 2d Battalion, from an assembly area near Anconella, was to move around to the right and attack the ridge north of Fazzano. The 1st Battalion was prepared to assist the 3d Battalion if it encountered difficulty in taking Mounterumici. (See Map 2.)

Supporting troops included the 338th Field Artillery Battalion; Company B of the 313th Engineers; Company C, less one platoon, of the 752d Tank Battalion; one platoon of Company C of the 804th Tank Destroyer Battalion; and one reinforced platoon of Company A, 10th Chemical Battalion (4.2-inch mortars).

THE 3D BATTALION ATTACKS

Early on 15 April friendly planes began an intensive bombing of the enemy front-line positions. The ground offensive began at 2230, when the fires of all available supporting weapons were directed on Monterumici for a full hour.

At 2300, from its line of departure at La Piana, the 350th Infantry launched its attack with the 2d Battalion


MT ADONE
BRENTO
S. CECILIA
FAZZANO
2
350
FAZZANELLO
RIDGE
LA TORRE
LA PIANA
A
350
MONTERUMICI
DI SOTTA
3
350
DI SOPRA
LA TOMBE
B
350
LA VALLE
I (-)
350
349
350
350
ANCONELLA
YARDS
500
0
500
1000
CART TRAILS
ENEMY LINE

Map 2

attacking north into the saddle toward Mount Adone and the 3d Battalion carrying the main effort against Mounterumici Ridge. Despite the intensive air and artillery pounding of the German positions, the attacking units were met by intense fire when they attempted to move up the slopes to the ridge. (See Map 2.)

In the 3d Battalion area, Company K, stopped by enemy fire, was ordered to swing around to the north and drive towards La Torre in an attempt to flank the enemy resistance at Di Sotta. This advance was stopped by surprise enemy machine-gun fire which forced Company K to take up positions about 400 yards below La Torre; the company also suffered many casualties from booby-traps and mines.

A few hours later Company K resumed its attempt to outflank the enemy by sending one platoon to the west of La Torre while another platoon attacked Di Sotta. The two assault platoons made their way up the steep bluffs leading to their objectives, but upon reaching the crest were driven back by point-blank automatic-weapons fire from the cellars of the ruined houses.

During this time Company L, which had attacked towards Fazzano, overcame an enemy outpost at Fazzanello but was halted by machine-gun and small-arms fire from Santa Cecilia.

The regiment's right flank was seriously in danger as long as the enemy held Mount Adone, and the 91st Division, which had been attacking Mount Adone since 0300, had been halted in the vicinity of Brento. Thus the 350th Infantry was exposed to observed artillery and mortar fire from Mount Adone.

During the morning of the 16th the 3d Battalion reorganized, fighter bombers struck Mount Adone, and the 338th Field Artillery Battalion smoked the southeastern slopes of the mountain. Following the air strikes, the battalion, supported by machine-guns and heavy mortars, resumed the attack.

Strangely enough, with the coming of daylight on the 16th enemy automatic-weapons fire ceased completely, and Company K was able to move three platoons into Di Sotta and La Torre, which appeared to be abandoned.

Elated by their apparent success, the company moved through the two villages—without checking the ruins for enemy—to assault the two remaining enemy positions on the Monterumici crest—Di Sopra and the cemetery.

As soon as the platoons had safely reached the exposed slope between Di Sotta and Di Sopra, the Germans came out of the ruins and opened fire with automatic weapons and mortars. This fire, emanating from three directions—Di Sotta behind them, Di Sopra to their left, and the cemetery directly above them to their front—was delivered with murderous accuracy and deadly timeliness.

This unexpected fire completely disorganized the platoons. Some men hit the dirt; others sought cover in fox holes in the vineyards on the slope to the right and left of the trail—only to discover that the fields were mined and the fox holes booby-trapped. Confusion became the dominant feature of the fight as the men, caught between these fires, fought to escape. A short, furious attack from the cemetery further disrupted the company and resulted in the death, wounding, or capture of most of the remaining men, and the capture of all their equipment.

Company I, in reserve, was called to help Company K. Company I, supported by tank fire, moved on Di Sopra and relieved the pressure somewhat; however, in the meanwhile Company L had been driven back by heavy mortar and machine-gun fire.

The 2d Battalion, on the 3d's right, after failing to advance had returned to Fazzano. Thus by 1800 on 16 April, the 3d Battalion's situation was desperate and the regimental commander decided to commit the 1st Battalion, his reserve.

The 1st Battalion planned to have Company A attack Di Sotta, Company C take Di Sopra and the cemetery, and Company B remain in La Tombe as battalion reserve. (See Map 2.)

Immediately after darkness, Company C moved out and scaled the Monterumici bluff below Di Sopra, and by dawn on 17 April, moved through Company I and assaulted the town. From this point on, the account of the fighting follows the action of Company A.

COMPANY A's PLAN OF ATTACK

When informed of the objective assigned him in the battalion attack plan, the Company A commander conferred with his platoon leaders and drew up tentative plans. From their reserve position at La Piana on 16 April, the officers of Company A had been able to observe through field glasses every detail of the action taking place on the slope above them; consequently, they were familiar with the enemy machine-gun positions. Their knowledge of the trail below Di Sotta and their knowledge of the area and the minefields around Di Sotta itself had been considerably increased by information obtained from the wounded brought down during the nights of 15 and 16 April.

This information, supplemented by a detailed study of air photos, convinced the Company A commander that the best assault position was the slope directly east of Di Sotta, and the best time for the final assault was at dawn.

With battalion approval of the plan, Company A moved out from La Piana at 2345, 16 April, and reached a position below the Di Sotta slope in time for a reconnaissance before the dawn attack. The trail from La Piana to La Torre followed a cliff that dropped off to a deep ravine. Since spring rains and washes had narrowed the trail, the company could travel only in single file.

Although no enemy contact en route was expected, it was nevertheless decided that the company should arrive at the assault position prepared to fight. Therefore the company moved out in column in the order 2d Platoon, 3d Platoon, 4th Platoon, Company Headquarters, and the weapons platoon.

By 0300 17 April the company halted about 500 yards east of La Torre. Here the company commander ordered that a three-man patrol be sent south to reconnoiter an off-the-trail route to Di Sotta. The remainder of the company took cover near the edge of the trail.

The three men sent on reconnaissance had previously proven their ability to move swiftly and silently over difficult terrain at night and to bring back timely and accurate reports. Within half an hour they were back with word that

they had discovered a difficult but passable route to Di Sotta along the face of the bluff.

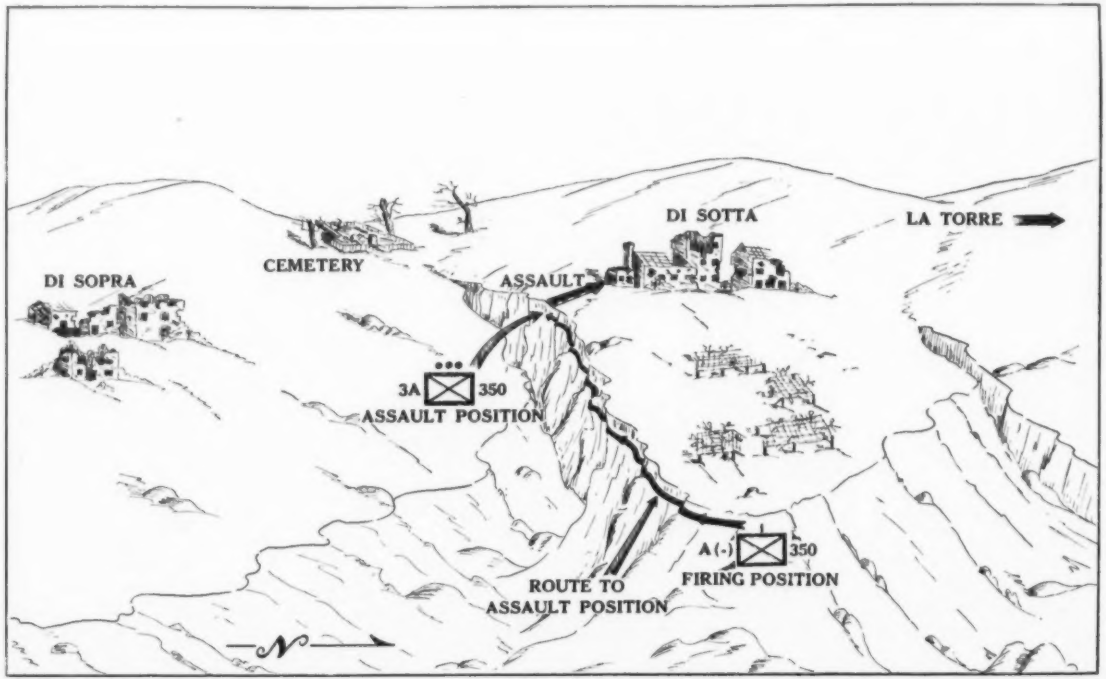
With one of the men from the reconnaissance party taking the lead, the company moved out along the bluff. The going was extremely slow and difficult because of the uncertain footing, and on many occasions the column had to halt to cross troublesome spots. In these places each man would have to hand his weapon and equipment to the man in back of him, cross the gap, and then have his weapon and equipment thrown to him. It required a full hour and a half for the company to move less than 500 yards.

By 0500 the company was on the bluff directly below Di Sotta. Here a radio message received from battalion stated that Mount Adone was still in enemy hands, and that direct observed fire could be expected from that sector. Orders were passed up and down the line to dig in. The company commander and two platoon leaders then made their way to the top of the bluff to reconnoiter the assault position. (See Map 3.)

As they came to the top of the bluff mortar fire began to drop near the area where the company was dispersed. This information was radioed to battalion, with a request for smoke on Mount Adone. Within three minutes smoke shell bursts could be seen on the mountain, and although the enemy mortar fire continued, it failed to come any closer to the company's area.

At the top of the bluff the company commander and platoon leaders found that they were separated from Di Sotta by a steep-sloping vineyard about 250 yards long. If the company assaulted Di Sotta from this position it would be exposed to grazing enemy machine-gun fire. Since a frontal assault under these conditions was considered out of the question, it was decided to seek another assault position.

The company commander and platoon leaders found that although the slope to the left of Di Sotta was equally steep, it was shorter, extending for only about 50 yards to the town. Unfortunately, the bluff in that area appeared to be impassable, nevertheless the company again dispatched a reconnaissance party, consisting of the 3d Platoon leader


DI SOTTA
LA TORRE
CEMETERY
ASSAULT
DI SOPRA
3A 350
ASSAULT POSITION
A(-) 350
FIRING POSITION
ROUTE TO
ASSAULT POSITION
N

Map 3

and two men, to see if there was some possibility of working to the left slope around the very face of the bluff.

The reconnaissance party returned with word that a narrow rock ledge, long enough to accommodate about 30 men, did exist on the face of the bluff. They reported that by discarding all equipment other than individual weapons, one platoon could make its way to this ledge, using the roots and bushes growing out of the face of the bluff to draw themselves along.

A plan for using this ledge was worked out. Since the 3d Platoon leader had already reconnoitered the face of the bluff, it was decided that the 3d Platoon would work its way up the ledge and make the assault from there. The remainder of the company would move up to the front of the slope and support the assault by fire. Additional support would be given by battalion and regimental weapons.

The 3d Platoon would notify the company commander by radio when they were in position on the ledge, and at this time five minutes of preparatory fire would begin. Company D would coordinate with Company A and the battalion command post by radio.

The 3d Platoon would assault after the preparatory fires were lifted. The light machine guns and individual weapons in the rest of Company A would continue firing during the initial assault, then the fires would be shifted to the right edge of the village, and then would be lifted entirely when the 3d Platoon was observed in the left end of the village.

As soon as the 3d Platoon entered the left edge of the village the 1st and 2d Platoons were to come up the front slope into the village prepared to repel the counterattack expected from La Torre. If there was no counterattack, the company would clear Di Sotta, reorganize, move north on the ridge and take La Torre.

THE ATTACK

Upon completion of these plans the men of the 3d Platoon started working their way around the face of the bluff to the ledge—a process that took about one hour. (See Map 3.) Harassing fire from mortars, machine guns, and individual

weapons was placed on Di Sotta to keep the enemy occupied and to divert his attention from the platoon's move.

Before the 3d Platoon started to the ledge, it had located one enemy machine gun at the left end of the village. To destroy this gun whenever it was definitely spotted, each squad leader in the platoon was equipped with two 60-mm mortar shells wired to rifle grenade adapters so that the shells could be fired as rifle grenades. It was felt that the additional punch of the 60-mm mortar shell would offset the loss in accuracy.

The first man to reach the ledge was the platoon sergeant, who immediately took up a position to observe the southern end of Di Sotta. By the time the platoon leader arrived on the ledge, the platoon sergeant had located the position of the single enemy machine gun guarding the slope. The gun was in the corner of a building, the ruins of which provided perfect overhead cover and made the emplacement virtually impregnable to high-angle fire. The platoon leader decided that this gun could be knocked out only by a direct hit of a 60-mm mortar shell rifle grenade.

The three squad leaders were shown the target and told to fire their improvised grenades during the preparatory fires. The platoon leader also briefed the squad leaders on their mission, emphasizing that during the actual assault all the men were to fire continuously as they moved forward.

Each squad was assigned an area of responsibility—the 1st squad, the buildings on the left, directly in front of the assault position; the 2d squad, the buildings in the center of the village; and the 3d squad, the buildings on the right. All squads were warned that until the arrival of the remainder of the company, the men would not enter the cellars or caves, but instead, would toss in hand grenades and cover each entrance with rifle fire.

When the platoon notified the company command post that it was ready, the preparatory fires from the company and the supporting weapons were brought down on the enemy. The first three improvised 60-mm mortar grenades were fired at the machine gun position—and missed. Of the second three fired, one scored what appeared to be a direct hit, but by this time dust and smoke from the tank and

mortar fires had obscured the ruins of the village and it was impossible to determine if the gun had been put out of action.

When the tanks and mortars ceased fire, the men of the platoon went over the crest and started their assault up the 50 yard slope. The steepness of the slope slowed them down to a walk, but since there was no enemy fire it was evident that the mortar grenade had destroyed the enemy machine gun.

During the assault all men of the platoon either forgot or were unwilling to fire their weapons as they moved forward, and it was necessary for the platoon leader and platoon sergeant to call men by name and order them to fire. Even with this spur, it is doubtful if more than twenty-five per cent of the individual weapons of the platoon were firing at any one time during the assault—a condition that could have been very costly if the enemy had been expecting the assault to come from the south.

CAPTURE OF DI SOTTA

Upon reaching the first ruined building, the men fired rapidly and enthusiastically; the squad leader of the first squad waved three men into the building, and each man fired practically a full clip of ammunition into the windows and door before he went in. The attack moved on. Two or three men went into each building. The 2d and 3d squads moved quickly north to the areas assigned to them and the whole platoon was soon disposed in the village, clearing the cellars and rubble of enemy.

The grenades proved to be extremely persuasive. The enemy streamed out of the buildings, hands high above their heads, shouting "Kamerad." As they came out the squad leaders and the platoon guide directed them down the slope to meet the rest of Company A, already on the way up to join the 3d Platoon in the village.

As the rest of the company moved into the village and took up position in the ruins, mortar fire, apparently coming from Mount Adone, hit Di Sotta. This was taken to be a sign of an impending counterattack, and the 1st and 2d Platoons, occupying the right end of the village, were

warned. After about two minutes the mortar fire was shifted to the south end of the village, and an enemy counterattack force of approximately sixty men could be seen coming down the trail from La Torre.

The light machine guns of the weapons platoon were brought into position and the men warned to hold fire until the enemy was within twenty yards of the northern buildings of Di Sotta. When the enemy reached this point, the platoon's automatic weapons opened fire. This broke up the counterattack; when shouts of "Kamerad" and "surrender" were heard, the men were ordered to cease fire.

An American soldier shouted in German, "Stand up with your hands above your heads." The entire counterattack force, except for casualties, stood up and on order moved into the village to give themselves up.

A hurried questioning of the prisoners revealed that this counterattack force had come from La Torre, and that only a platoon of Germans, mostly wounded, still remained there. Acting on this information the company commander at once sent the 1st Platoon to La Torre to take the village.

The 1st Platoon moved up the ridge, using the same trail that the enemy counterattack force had taken to Di Sotta. The platoon was accompanied by a section of light machine guns and by a German-speaking soldier.

When approximately seventy yards from La Torre, the platoon leader dispersed his platoon into firing positions, with the machine guns emplaced to fire on the buildings. When the men were in position, he ordered each machine gun and automatic-rifle crew to fire three long bursts. Then the German-speaking soldier called to the enemy, telling them that they had sixty seconds to surrender and to come out of the building with their hands up, or they would all be killed. The Germans came out in less than thirty seconds.

As soon as the 1st Platoon had occupied La Torre clearing parties were sent into the network of tunnels connecting Di Sotta with Di Sopra. These tunnels were found to be part of an ancient tunnel system going completely through Mount Adone and Monterumici. In many of the tunnels were found living accommodations including wooden two-decker bunks —many of which were occupied by enemy and Company

K wounded. Large quantities of small-arms ammunition, grenades, rifle grenades, and panzerfaust were found stored in the tunnel.

It was learned from prisoners and members of Company K that the enemy manning the positions in La Torre and Di Sotta had, at daybreak on 16 April, left those towns and moved into the tunnels. From there they allowed Company K to come through the two villages unopposed, but with observers closely watching their progress. When Company K was in the most exposed portion of the area the enemy moved back into their firing positions in Di Sotta and La Torre, thus closing the trap.

One casualty was suffered by Company A in the attack against Di Sotta and La Torre—the platoon runner of the 3d Platoon was hit by a mortar fragment.

About a half-hour before the final assault of Di Sotta, Company C had after a bitter fire fight and hand-to-hand combat, succeeded in taking Di Sopra and the cemetery. Ten men of the company (including the company commander) were killed and 31 wounded.

With the capture of Di Sotta, Di Sopra, and La Torre, enemy resistance on Monterumici was eliminated. One hundred and sixty-six prisoners were taken by Company A in the two villages and in the network of tunnels. By 1830 17 April the regiment had captured and secured the entire Monterumici Ridge and was ready to continue the attack into the valley to the west and north.

The officers of Company A were surprised to note that not one commissioned officer was among the more than 160 prisoners taken in Di Sotta and La Torre. Questioning of the prisoners revealed the startling information that every German commissioned officer had, upon orders from higher commanders, withdrawn to the rear during the night of 16 April. Before leaving they ordered their troops to "fight to the last round of ammunition, then surrender." Non-commissioned officers had commanded the enemy units in Di Sotta, Di Sopra, and La Torre.

ANALYSIS AND CRITICISM

Under the regimental plan the 3d Battalion, previously in reserve, was brought up to make the initial attack on Monterumici. This plan was without doubt sound, but the advantages gained from this deception were nullified by the 3d Battalion's unfamiliarity with its new area. If each of the forward companies of the 3d Battalion had sent out a reconnaissance patrol to reconnoiter the route to its assault position, valuable time and many casualties would have been saved.

If combat patrols had been sent to feel out the enemy defenses on the ridge before the attack, Company K would probably have known of many of the enemy machine-gun positions that surprised them during the attack. It is realized that as a secrecy measure patrol activity was suspended before the attack; however, patrols had been active on the whole front during the entire winter, and the suspension of patrol activity, in itself, served to warn the enemy that a special action was being planned.

In the attacks on the morning of 16 April, the company attacks were uncoordinated in time and direction because of the failure of the company radios to function in mountain terrain. For example, while Company K was moving away from La Torre to escape enemy machine-gun fire, Company L was attacking Fazzanello; when Company K attacked Di Sotta, Company L was inactive; when Company L resumed its attack, Company K was retreating from Di Sotta.

Because these attacks could not be coordinated, the Germans were able to move from one position to another through the tunnels and concentrate their attention on the attack of each company.

Company K's failure to check cellars and tunnels in La Torre and Di Sotta before moving on to Di Sopra was inexcusable, for if La Torre and Di Sotta had been cleared of the enemy when the company moved through, the action would have been over a day earlier.

Company A's attack on Di Sotta on 17 April, with one platoon assaulting under covering fires of the remainder

of the company and of supporting weapons, is an excellent example of the efficiency of fire and maneuver.

The reluctance of the men to fire their weapons while moving forward in the assault is an old problem to small-unit leaders, and is probably based upon the mistaken belief that a soldier who fires is more apt to draw enemy fire.

Withdrawal of the German officers from the defense position, leaving further resistance in the hands of non-commissioned officers, is highly significant. At the time the officers withdrew, it was obvious to all of the German soldiers on Monterumici that the only future awaiting them was either death or capture. Yet, they continued fighting until their positions were overrun.

As was shown by Company K's several attempts to find a weak link in the chain of defense through La Torre and Di Sopra, the Germans were well trained in organizing their defense according to the terrain. The only approach to Di Sotta that was not covered by fire of at least two automatic weapons was that used by the 3d Platoon, Company A. An interrogation of the prisoners taken on Di Sotta revealed that the Germans had considered this approach impassable to all but specially equipped mountain troops, and accordingly had failed to defend it in strength.

LESSONS

Some lessons emphasized by this operation are:

1. A thorough and complete reconnaissance of an attack area is essential to the success of the attack.

2. A determined defender cannot be driven from a well-organized position by air and artillery bombardment alone.

3. In defense, no point should be overlooked as a possible route of enemy approach.

4. In attack, supposedly impassable obstacles sometimes offer the best assault route.

5. The basic infantry tactic of fire and maneuver will, when properly coordinated, enable the reduction of the best-organized defensive positions.

6. The small-unit leader's knowledge of the individual capabilities of his men is an aid to success in battle.

7. The use of smoke on enemy-held terrain features dominating the battle area reduces the effectiveness of enemy indirect fire.

8. Failure to mop-up in captured buildings and cellars is costly.

9. Training in assault fire technique should be stressed until firing becomes as automatic as walking.

10. In mountain combat, attacks are difficult to coordinate.

The Engineer Combat Battalion in Support of Infantry

If you stood beside a road and watched a divisional engineer combat battalion roll by you would count nearly 350 vehicles and trailers. To fire each weapon in the battalion, once, you would have to turn out 1,058 rounds of ammunition, and the sounds would range from the insignificant pop of the caliber .45 pistol to the rustling whish of the 75-mm gun. If you had to furnish "B" rations to this unit for one day it would require nearly three tons. If this battalion were to go on a one hundred mile motor march, you would have to dispense some 4,200 gallons of gasoline and oil. What is this large outfit for?

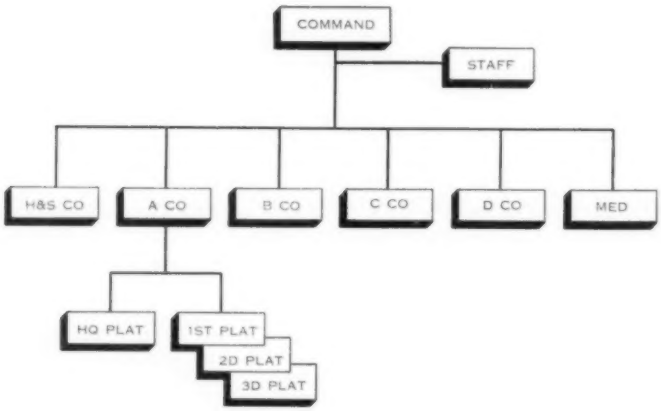


Figure 1. Organization of Engineer (C) Battalion of an infantry division.

The engineer mission in an infantry division is, simply stated: to increase the combat efficiency of the division. Elaborated slightly, this mission is to keep the division moving; to impede the enemy; to furnish engineer supplies, including water, maps, fortification material, etc; to give technical assistance; and to fight when necessary.

The combat engineer battalion is organized rather conventionally with an overall strength of 969 officers and men—an increase of roughly 50 per cent over the World War II unit.

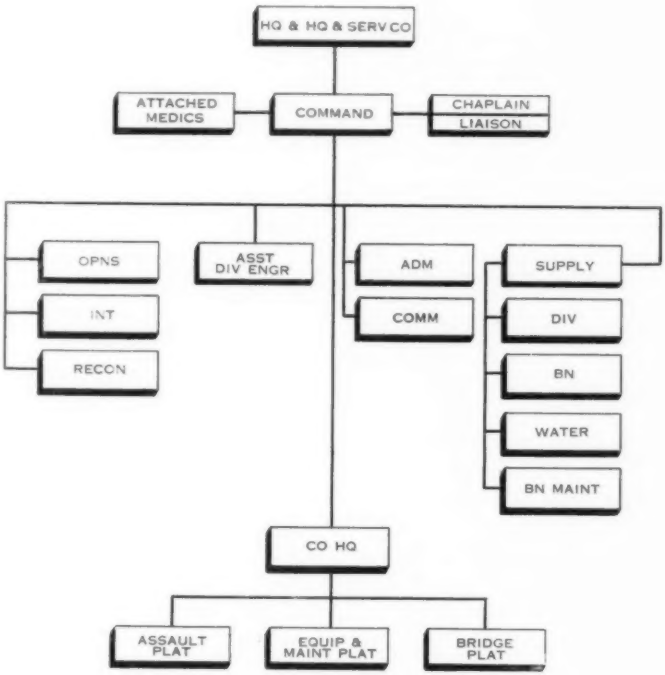


Figure 2. Organization of Headquarters and Headquarters & Service Company.

You will find many differences between this battalion and its predecessor of World War II—principally in size and equipment. The changes which have been made are a result of long and careful study; they are for the most part made necessary by the increased engineer work, which in turn is a result of the tremendous increase in the number of armored vehicles in the infantry division. Also the increases make it possible for the divisional battalion to perform their mission without reinforcement by corps and army units and equipment. Corps and army engineer support is still necessary, but to a lesser degree.

The battalion commander commands the engineer battalion and in addition is a division special staff officer. In his staff capacity he is known as the Division Engineer. The two jobs are as inseparable as bread and butter—the duties of both jobs constantly overlap.

The executive officer has duties which are essentially the same as those in any other battalion. This is also true of the S-1, S-2, and S-3. The S-4 has a dual job—normal battalion supply, and in addition, division engineer supply. The latter can assume gigantic proportions, especially in such situations as a prolonged defensive operation. Now we come to three officers whose jobs are peculiar to engineer units—the assistant division engineer, the reconnaissance officer, and the liaison officer. Let's take them up in that order. The assistant division engineer is the division headquarters engineer liaison officer. In the absence of the division engineer he advises the division commander and his staff on such matters as engineer capabilities, status of engineer equipment, progress being made on engineer equipment, and progress being made on engineer missions. He keeps the engineer battalion headquarters advised of plans and progress of the division. In many cases he also handles division map supply as he is always present at division headquarters and can coordinate map requirements with the division G-2.

Let's look at the reconnaissance officer. Most of the day-to-day engineer information needed by the engineer battalion for normal operations is discovered by the lettered companies in the course of their operations. However, there

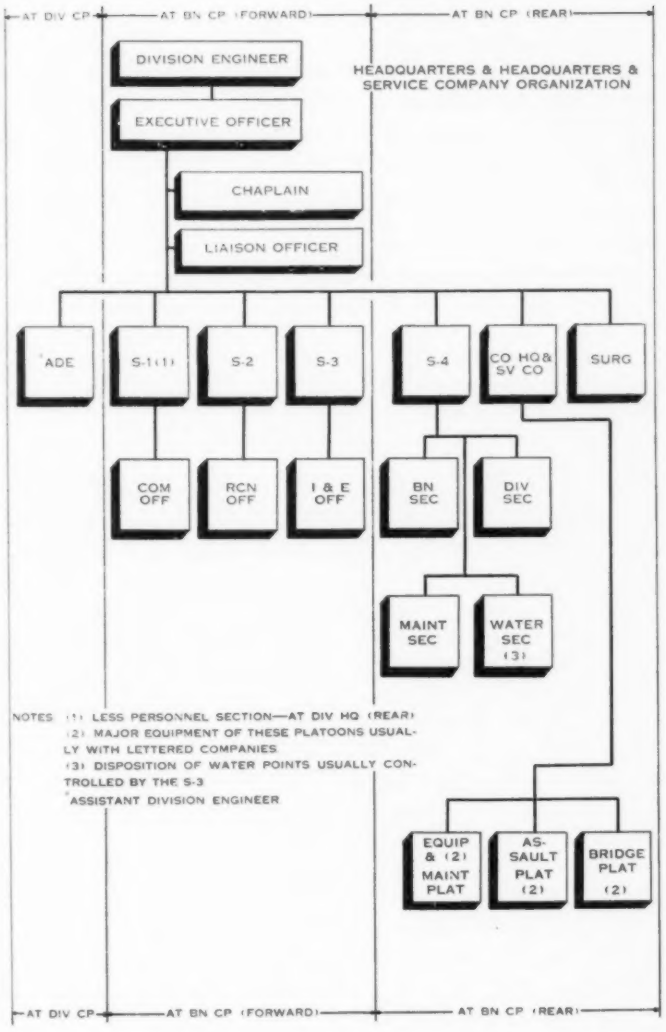


Figure 3. Functional organization.

is some engineer information such as the condition of non-used lateral roads, location of construction materials, or status of critical bridges, which can be gathered more effeciently by special agencies. These agencies are three motorized radio-equipped reconnaissance parties under control of the reconnaissance officer.

Last, consider the liaison officer. The division engineer battalion is almost continually supported by corps or army engineer units. Frequently these units will work well forward in the division zone, and in special operations such as river crossings, they of course, must operate on the infantry level. The liaison officer works between these supporting units and the division engineer battalion. The result is closer coordination between the division engineer battalion and supporting corps or army engineer units.

Before we consider the operating sections of the headquarters and service company, notice that the battalion has a chaplain and a medical detachment. The medical detachment is organized to provide three aid men for each lettered company and to operate a battalion aid station.

Considering the remainder of the headquarters and service company you will notice that the various staff sections have been grouped to make coordination simpler. (See Figure 2.) The first group consists of the S-2, S-3, and reconnaissance sections. Usually the S-2 and S-3 of an engineer battalion work very closely together. In effect their duties are interchangeable, thus enabling a combined operations-intelligence section to perform efficiently day and night. As the reconnaissance section is a field agency of S-2, it will naturally fit into this group. The S-3, being a major, controls and directs the efforts of the group.

The second group consists of the S-1 and communication officer and their sections. The S-1, a captain, usually serves as headquarters commandant for the engineer command post. As the delivery of correspondence and reports is important to the S-1, it is natural that the activities of the communications officer be coordinated by the S-1.

The third group contains sections normally operating from the company rear echelon. The supply section is divided into a battalion, a division, and a water section. The

water section may be controlled in part by the S-3, because the location of individual water points depends on the tactical situation. The S-4 commands the rear echelon in addition to his other duties.

The company headquarters and service company is the fourth group. Under its control are the headquarters of the three new platoons added to the engineer battalion—the assault platoon, the equipment and maintenance platoon, and the bridge platoon. The major equipment of these platoons is usually under control of the battalion S-3, and is usually attached to the letter companies. Since these new platoons are major additions to the engineer battalion, let's examine each of them briefly.

Figure 4. Tankdozer.

Frequently during the past war engineer bulldozers were required to perform under fire missions such as clearing roadblocks or constructing bypasses. At that time there were two solutions to the problem: an armored cab could be placed on a standard bulldozer, or a tankdozer could be procured from ordnance (not a simple solution with so few available). The tank dozer method gave by far the

Figure 5. Quickway crane.

Figure 6. Road grader.

most promising results. Consequently, the new assault platoon brings five tank dozers into the engineer battalion, filling a long existing need.

The equipment part of the equipment and maintenance platoon is also new. Within the platoon are three 3/4-cubic

yard mobile cranes, two motorized road graders, one air compressor, one D-7 bulldozer, and a bucket loader. The addition of cranes (with shovel, pile driver, dragline, and clam-shell attachments) and graders means much better and faster road maintenance than before—the days are past when road repair materials had to be loaded into trucks by hand. The grader makes possible for the first time, precision road work in the division zone. Formerly the bulldozers had to do this job, which was like trying to do fine cabinet work with a two-man crosscut saw. Another reason for adding cranes to the new battalion is that since 50-ton capacity bridging has been added to the division, cranes are needed for efficient handling.

This brings us to the third new platoon—the bridge platoon. Formerly, when the infantry needed bridging it had to come from a corps or army engineer unit. This system worked fine for deliberate river crossings, but was much too slow for everyday needs of the division. Short sections of dry bridging were needed. Many divisions filled the need by obtaining small units of treadway or Bailey (panel) bridging, and keeping them continually available in the division engineer battalion.

The requirement for bridge construction in the division has been met by the addition of a bridge platoon. This unit carries sufficient bridge building material to construct a single lane, 50-ton, four trestle bridge 191 feet long, or to construct a floating bridge 321 feet long. Because some of the bridging material is common to both types of structures, the maximum combination fixed and floating bridging that can be erected at one time is 355 feet.

The platoon's bridging equipment is normally used to make hasty river crossings, to supplement corps bridging, to bridge narrow gaps, and to provide rafts for special river crossings. Only rarely is all of the platoon bridging used to construct a span of the maximum length. Major river crossings and long bridges require the support of corps or army engineers.

In addition to bridging, the platoon has twenty-one M-2 assault boats, eight 22½-horsepower outboard motors, and a 25-foot powered utility boat.

The lettered company is the basic working and fighting unit of the engineer battalion, and it is organized conventionally into a headquarters and three numbered platoons. The headquarters contains the command, administration, supply, mess, and motor sections of the company, and in addition, two company support items of equipment—the D-7 bulldozer and the air compressor. Each line platoon

Figure 7. Air compressor and equipment.

consists of a platoon headquarters and three squads. The company is completely motorized, even to the D-7 bulldozer, which is moved by a 20-ton trailer and 6-ton primer mover.

The basic transportation of the company is the 2½-ton 6x6 dump truck—one for each squad, plus four additional for platoon and company headquarters. The basic command vehicle is the ¼-ton truck—four in each company. For administration, supply, mess, communication, and motor maintenance, the company has three ¾-ton trucks and a 2½-ton cargo truck.

The numerous weapons of the company are needed for two primary purposes; first, to provide security for engineer work detachments and bivouac areas; second, to use when the company may be employed as infantry. The basic weapon is the M-1 rifle—145 to a company. In addition each company has six caliber .30 light machine guns and four caliber .50 machine guns (primarily for AA protection). Jeep drivers, the bugler, and radio operators are

armed with caliber .45 submachine guns, and officers and noncommissioned officers carry carbines. For antitank protection the company has nine 3.5-inch rocket launchers—one per squad.

The work sets of the company are of three types—carpenter, pioneer and demolition. Each squad has one set of each type, and an additional set of each is found in each line platoon headquarters. Each company has nine probes and nine electronic mine detectors.

So much for the organization of this battalion; now let's put it on the ground in a division sector and see how its elements are disposed in a defensive situation a few days prior to an attack. (See Figure 8.)

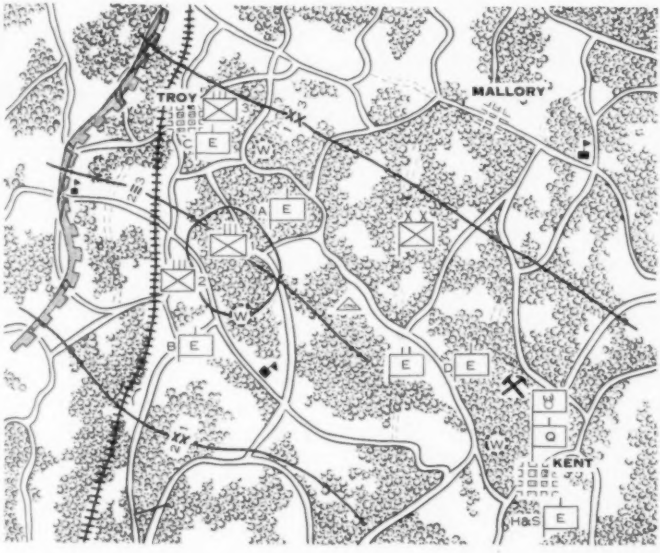


Figure 8. Field organization in support of an infantry division.

The 1st Division has its 2d and 3d Infantry on line, with the 1st Infantry in reserve. Notice that the engineer command post is usually located in the immediate vicinity of the division CP; this facilitates control of engineer

troops and insures that engineer missions throughout the division zone can be centrally coordinated. Furthermore, you'll notice that the engineer command post in this location is centrally located among the units of the engineer battalion. At the engineer command post you'll usually find the commanding officer or the executive officer, S-1, S-2, S-3, reconnaissance officer, liaison officer, communication officer, chaplain, and their respective sections, plus a mess section from headquarters and service company. The assistant division engineer is at the division command post.

The remainder of headquarters and service company are in the vicinity of the division ordnance and quartermaster companies in Kent. Here you can expect to find the company headquarters, the supply section (including the S-4), a small mobile engineer dump, battalion maintenance, battalion aid station, and the headquarters of the assault, bridge, and equipment and maintenance platoons. Some of the battalion equipment, such as bridging and possibly a reserve water point, may also be at Kent.

Now notice the location of the water points. As we've already indicated, one is at headquarters and service company, either for maintenance or reserve. The other three are located as indicated; two in the sectors of the forward infantry regiments, and one set up to the rear for use of division trains and division headquarters. Three operating water points can usually fill the normal needs of the entire division.

Letter companies are conventionally disposed. Companies B and C are near the command posts of the regiments they support. Thus centrally located, engineer support to any point in the regimental sectors can be dispatched efficiently and quickly.

Company A is situated where it can perform several missions. From its location it is ready to support the reserve regiment when it is committed. In the meanwhile it can be used to maintain the forward portion of the division main supply route or to reinforce Companies B and C.

Company D is on the main supply route in rear of the division command post. From this point Company D can

maintain the rear portion of the main supply route, and at the same time can also give quick support to the forward engineeer companies.

To facilitate rapid execution of engineer missions the equipment of the assault, equipment and maintenance, and bridge platoons is dispersed throughout the division zone. With the engineer battalion disposed as shown in figure 8, a normal disposition would be two tank dozers to B and C Companies and one tank dozer to A Company. Since the division is preparing for an attack, two 38-foot bridge units are allotted to A, B, and C Companies. Company A is included since it will assume a front-line support role as soon as the 1st Infantry is committed. The remainder of the bridging is held in the headquarters and service company area, but it will be moved well forward in the division zone just before the attack.

The equipment of the equipment and maintenance platoon is probably disposed as follows: Company D, since its primary mission at present is road maintenance, has attached to it the two motorized road graders. To provide road repair material for use of Company D, a barrow pit is opened. Working with Company D in the barrow pit are the battalion's bucket loader, two quickway cranes, and a D-7 bulldozer. The remainder of the equipment, one air compressor and one quickway crane, is held in the headquarters and service company area. Just before the attack one quickway crane may be allotted to Companies B and C for erecting bridging.

Let us examine engineer operations in the defense. The four lettered companies normally remain under the central control of the division engineer, for in a defensive situation there will be as much engineer work in support of the division as a whole as there will be in support of particular regiments. How much support, then, does the infantry regiment get? This of course varies with each situation. The engineer company which habitually works with and supports a particular regiment keeps one platoon working on regimental missions; the other two platoons are employed by the

division engineer. If the situation warrants more engineers are placed in support of the infantry regiments.

The engineers in support of the front-line regiments perform whatever engineer tasks are necessary to improve the defensive position. Their normal role is to provide technical assistance, materials, and tools; the infantry units furnish the labor. Engineer assistance is particularly helpful in sandbagging weapons emplacements and command posts and digging hull defilade positions for tanks with explosives or tank dozers.

The engineers also assist the infantry in constructing obstacles, erecting wire, and laying mines in front of the defensive position. Here again, engineers provide the technical assistance and the infantry provides the labor. The engineers make recommendations on the location and types of obstacles and wire entanglements, provide the material and the tools, and supervise construction. It is particularly important that the engineers supervise laying of mine fields to see that they are properly charted.

When the missions in the entire division sector are too great for the resources of the battalion, then a priority of missions is established (usually by division G-3) and a corps engineer unit moves into the division zone to give more support.

A division on the defensive needs many many tons of barbed wire, sandbags, lumber, cement, and many other such items. The division engineer supply section, necessarily augmented by trucks and men from other units, keeps these items moving from corps and army dumps to the front lines. A defensive situation over a long period of time usually results in engineer supply dumps being established at corps level.

Road maintenance is hard work. It usually means many man-hours of pick and shovel work, together with the quarrying and hauling of many tons of road materials. It means opening gravel pits and rock quarries, perhaps operating bituminous mixing plants. It means strengthening undersize bridges, or perhaps widening them. During wet seasons it usually entails extensive road drainage problems, or the laying of planked or corduroy roads. During hot-dry

seasons it may entail dust prevention. In winter it means keeping the roads open with snow plows and covering icy stretches with cinders or sand.

Engineer units rarely should be used as infantry because normal engineer work is neglected when they are in the line. However, occasions may arise, and when thrown into the breach, engineers are capable of executing combat missions.

The statistics compiled by the 10th Engineer (C) Battalion, 3d Infantry Division gives some idea of the variety and extent of the missions performed by engineers in a defensive operation. While the 3d Division was defending a sector of the Anzio beachhead from 22 January to 23 May 1944, their engineer battalion performed the following engineer tasks:

Antipersonnel mines laid	274
Antitank mines laid	25,840
Roadblocks constructed	19
Bridges demolished	30
Yards of double apron entanglement erected	24,600
Yards of concertina entanglement erected	13,000
Pounds of explosives used	33,000
Positions constructed or dug in	
Tank or gun	157
Division command posts	3
Hospital tents	30
Miles of road maintained	26
Miles of road built	15
Treadway bridges built	9
Bailey bridges built	2
Footbridges built	19

During a portion of the same period another engineer unit was employed as infantry on the same beachhead. The 36th Engineer Regiment defended 4½ miles on the left flank of the beachhead from 10 February to 26 March against elements of the 4th German Paratroop Division.

The basic mission of the engineers in an attack is to facilitate the forward movement of our forces. To accomplish this mission engineer work can be done either on an area basis or on a job basis. Usually area assignment is preferable because as unforeseen tasks arise the engineer battalion commander can shift the effort to the sector where it is most needed, or he can commit his reserves.

To insure flexibility of effort during an attack it is preferable to keep the supporting engineer companies under the division engineer's control. Rarely are the companies attached to the regiments, but instead are in support of them. Generally, one company supports each regiment, but the engineer company commander determines how much of his company is actually needed to perform regimental tasks and the remainder of the company is used to perform division missions.

The engineer company commander maintains personal liaison with the supported infantry regimental and battalion headquarters and tries to anticipate their needs. Infantry battalion and regimental commanders usually deal directly with the engineer platoon or the engineer company commander. The engineer platoon or squads supporting a particular infantry battalion are in the vicinity of the battalion CP, and commanders keep personal liaison. Similarly, the supporting engineer company bivouac area is reasonably close to the infantry regimental CP.

The success of an attack depends to a great extent on the work which is done during its preparation. The engineers always have much to do during this period.

First, there is the matter of reconnaissance. Answers are needed to such questions as: Are there mines? If so, what type and where are they? What obstacles has the enemy placed before us? There are several reconnaissance agencies available to get this information. We can send out engineer patrols or send engineers on infantry patrols. We can fly over the lines in a liaison plane. We can have photos taken, or we can make map reconnaissance. Quite often we can discover by photo map study the type and location of obstacles. We can instruct the prisoners of war interrogators to get specific engineer information.

Assume that the attack encounters man-made obstacles such as dragon's teeth. Here engineers, probably a platoon in support of each infantry assault battalion, will blow tank paths through these obstacles, clearing the resultant debris with dozers or hand tools. Suppose there is a tank ditch, or a cut which presents a tank obstacle. There are several ways of getting armor across such a ditch: first you can bridge it, but, under heavy fire, this may be impractical. You can use explosives to knock down the banks so tanks can cross. You can use a bulldozer or tank dozer to fill a roadway. If the sides of the ditch are too high for foot troops, the engineers can build ladders to cross it. You may encounter pillboxes. Here you may use infantry assault teams carrying demolitions, or you may use engineer demolition men in your assault detachments; in any case, the engineers can make up the charges and show the infantrymen how to use them.

So far we've considered obstacles which we'd probably find in a prepared position. Let us assume now that we've passed through the fortified belt and are attacking more hastily organized defenses. If there are roads in the zone of attack, they will usually be mined, and an engineer squad with each assault infantry battalion will have to remove the mines. The engineers and their bulldozers can help destroy roadblocks.

If the attack is through a built-up area, chances are that rubble will block the road. Here again, explosives and bulldozers clear the way. The attack is likely to meet craters and blown culverts or bridges. The engineers can usually bypass them after shovel, bulldozer, and carpenter work, or after installing a short section of dry bridging.

Engineers may be called upon to attack as infantry, but only in rare instances should this be necessary; usually their normal work is more important and their attack capabilities are limited. They have no BARs, no mortars, and inadequate medical facilities, and no artillery observers; all these must be provided. Remember too, that after their

automatic weapons are properly manned, the engineer company has very few riflemen. Their limited armament, training, and number of riflemen make them suitable only for limited objective attacks on a narrow front.

CONCLUSION

The mission of the divisional engineer combat battalion is to assist the advance of the division and to delay or halt the advance of the enemy. The battalion is equipped and trained to execute its mission regardless of terrain or weather. It excels in expedient methods of accomplishing a wide variety of tasks, and its primary limitation is time.

Motti

Long before the opening of hostilities in the Russian-Finnish war (1939-1944) the Finns had developed a unique tactic called the *motti* (freely translated, enclose in frames as cords of wood). In a military sense, motti refers not only to a type of combat, but also to the conditions under which the tactic is employed, and is essentially descriptive of the hit and run tactics by which the Finns outflanked, encircled, and cut to pieces extended Soviet columns.

The climate and terrain of Finland made the motti tactic workable. Finland is a land of 70,000 lakes covering 12 per cent of the entire area, swamps covering 25 per cent, and forests covering 63 per cent. During the four to six months of severe winter, daylight varies according to the month, from four to six hours. (The Finns, unlike the Americans, have had actual sustained combat experience under conditions of extreme cold.)

With the terrain cut by lakes and swamps and the visibility limited by dense evergreen forests, military movements are restricted. Battalions and even companies are forced to act in accordance with the commander's independent judgment within the dictates of general conditions. Maintaining ground lines of communication becomes an important factor in military operations, since movement outside the meager road net is greatly impeded.

The possibility of combining frontal and flanking attacks is very remote because roads lead through a system of mutually protecting defiles. Even if an attacking unit succeeds in pressing through such a defile, it faces the risk of being separated from the main body with little chance of securing aid from friendly troops in nearby passes. In such terrain the attacker must accept the risk of having units defeated in detail—hence the development of the Finnish slicing-encircling tactics against extended and often road-bound columns.

One of the more spectacular Finnish successes in employment of the motti tactic was achieved in early December, 1939 in the Petsamo corridor. Retreating before 10,000 Russians, the Finns led the Soviet forces a long wearying chase to a Finnish village 70 miles south of the Arctic Ocean. The Russians were well equipped for the pursuit up to this point, possessing many armored cars, propellor driven sleds, and cooperating aircraft.

Figure 1. The above photograph was reproduced from a Finnish combat document. According to the caption, a motti group destroyed both of the Russian guns before they could fire a round.

When it seemed that the Russians were about to drive the Finns into the Gulf of Bothnia, both the Finns and the weather changed. Finnish raiding parties took the offensive and launched quick paralyzing thrusts at the Russian lines. Bogged down in a violent blizzard that reduced visibility to nine feet, and further immobilized by severe cold that froze radiators and congealed the oil in tanks and cars, the Russian column was sliced into many isolated segments by the encircling Finnish mottis. Disorganized by the series of Finnish thrusts and immobilized by the weather, the Russians withdrew, leaving a trail of abandoned vehicles, guns, and casualties.

Later in the same month on the central northern front the Russians attempted to drive across Finland's narrow waist. Here the motti was again employed against superior Soviet forces in what was perhaps Finland's greatest victory. Cutting the 163d Soviet Division of some 18,000 men into mottis, the Finns, far less in numbers and equipment, successfully routed the entire force.

One week later, the Russian 44th Infantry Division of about 20,000 men, attempting to help the 163d Russian Division, was also trapped and destroyed in mottis.

In the preceding engagements the Soviet forces were largely mechanized, their infantry without sufficient skis or the skill to use them, and their winter bivouac equipment

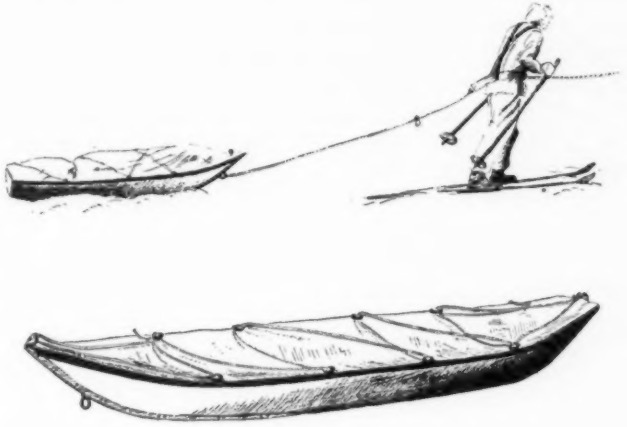


Figure 2. Motti groups pulled their combat equipment in boat-shaped *ahkios*.

inadequate. The Finnish forces on the other hand possessed skis and other oversnow equipment and were well trained in their use. Also, the Finns used few mechanized vehicles but many sleds and horses. Heavy weapons were held to the minimum, with mortars generally being substituted for artillery—although some light artillery was carried—and individual equipment was light but adequate.

The training of Finnish Army personnel was conducted in two phases; the summer training was much like the training of any army, but the winter training was especially adapted to the winter climate prevailing in Finland.

All Finnish military personnel are capable of oversnow movement by ski. Also, as the versatile jeep is to the American Infantry, so is the peculiar *ahkio*, a boat-hull deep-snow toboggan or sled, to the Finnish ski troops. (See Figure 2.) With the hand drawn ahkio the Finnish infantrymen are capable of carrying food, ammunition, light weapons, and equipment great distances over rugged snow-covered terrain. The ahkio is also exretmely useful for evacuation of casualties.

The fierce fighting spirit of the Finns is called *sisu*, an untranslatable Finnish word—the nearest English equivalent being *courage*. Sisu is a state of fanatic patriotism and religious fervor acquired by the Finns in their long history of conflict to survive as a free people. Sisu, or the do-or-die attitude of the fighting Finn, and the terrible winter cold and blizzards cost the Soviet forces thousands of casualties and millions of dollars in equipment.

The Finnish motti tactic was an outgrowth of the Sisu spirit; it was predicated on individual courage and teamwork, and it was workable because the enemy was roadbound and comparatively immobile. The motti tactic is worthy of consideration because its application is not restricted to Finland; it could be used in many situations where one force is roadbound and the terrain is compartmented by hills, swamps, dense forests, or unfrozen lakes. It does not take too much imagination to visualize a similar tactic being used during the spring thaw in the Arctic, or even in the semitropical state of Florida.

Tactically, the motti system may be roughly divided into the following phases:

First phase—reconnaissance and stopping (see Figure 3).

Second phase—attacking and cutting (see Figure 4).

Third phase—isolation and annihilation (see Figure 5).

While each of the three phases is a distinct part of the overall operation, two of them may be carried on at the same time. That is, phase two may begin while phase one

is still taking place. Also, reconnaissance—shown as phase one—is continuous until the mottis are isolated.

Reconnaissance and stopping phase. The main objective during this phase is to stop the enemy. Delaying action against the advancing roadbound column is conducted by small detachments having considerable automatic fire power. Reconnaissance and harassing begin almost at the same time. The reconnaissance is spirited and seeks to determine the enemy's route of advance, mobility (particulary cross-country), strength, quality of armament and equipment, and communication and supply lines.

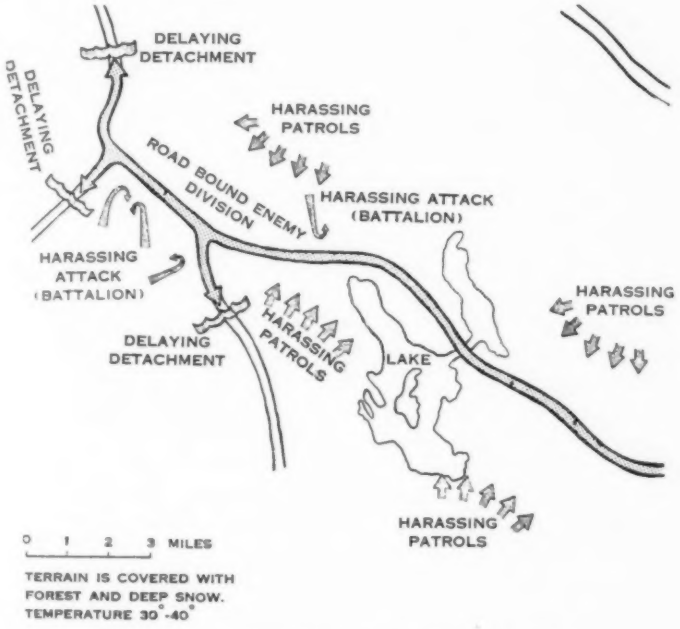


Figure 3. Reconnaissance and stopping phase.

During the initial stages combat patrols attack the roadbound force—particularly at night. Guerrilla patrols execute demolitions, mine roads, and fire behind the enemy lines. Ambushes and hit-and-run tactics are used to disturb

the composure of the enemy, to create an air of uncertainty, and to prevent uninterrupted sleep and rest. In addition the enemy is compelled to use more troops on security missions.

The strength of these guerrilla patrols varies from a squad to a platoon. Their missions demand speed and surprise; consequently they are lightly equipped and travel on skis. Men are skilled in concealment and camouflage, and are armed with light demolitions. Initiative, aggressiveness, and small-unit leadership are outstanding.

Following the initial reconnaissance, combat patrols attack the enemy from all directions. This creates the illusion that attacking forces are everywhere, and the enemy never knows where to expect the next attack. Maximum use is made of the concealment provided by darkness and the forests. Enemy security posts are avoided. To increase the demoralizing effect, patrols hold fire until within close range of the main enemy forces. Profitable objectives are marching troops, bivouacked units, motor columns, and supply dumps. Guerrilla patrols set off demolitions and plant mines in the rear of the enemy, especially on roads to the rear. Some patrols are given both reconnaissance and combat missions, but the majority have only combat missions. Each patrol carries out more than one mission; after attacking at one point it moves rapidly by skis and attacks a different part of the column. Sporadic attacks in company or battalion strength are directed at specific limited objectives. After the objective is destroyed or the enemy is forced to deploy, the attacking force disengages. These activities force the enemy to increase the size of its security forces and produce an over-all effect of uncertainty, fear, and depression.

Usually a division commander controls the operations and establishes the zones of activity for regiments and separate battalions. The division commander retains indirect control over attacks of companies or larger units.

Attack and cutting phase. This phase is one of surprise flanking movements and envelopments. It can be subdivided into three consecutive activities: first, the movement into assembly areas where units are organized into

battle groups; second, the movement into attack areas near the objectives; and third, the enveloping and cutting, wherein the enemy is isolated in small mottis. By these maneuvers the enemy column is isolated and then sliced into small groups, each of which in turn is isolated and destroyed.

Figure 4. Attacking and cutting phase.

Based on the attack plan, combat teams of regiment, battalion, or company size move to assembly areas selected outside the radius of enemy land reconnaissance. These areas may be three to six miles on either flank of the objectives. The combat supply columns accompany the troops. Movement is made at night or during snow storms or fog and measures are taken to preserve surprise.

Groupment in the assembly area is made according to the tactical plan. The guiding or navigation detachment is at the head of the column. Ahkios loaded with heavy weapons, ammunition, and other supplies are assigned to units and are man-drawn from this area. The supply echelon frequently remains in this area but is split up and dispersed for concealment. The unit remains in the assembly area only long enough to organize into tactical groups before moving out.

Movement into the attack area is made in column formation along the most concealed route. Reconnaissance for the supply route is carried out at the same time because the tactical route can frequently serve as the supply route. Large groups, such as regimental combat teams, may move in several columns to reduce the time-length of the unit. The guiding detachment is responsible for maintaining direction and for breaking and marking the trail; in addition, it serves as the security element for the head of the column.

Flank patrols, detached from the main column, are sent out to secure potentially dangerous approaches into the route of the column. They select positions near the route, stay until the column passes, then fall in at the rear.

The march speed is about one mile per hour. The troops must not exert themselves as they must stay in good condition for battle. They dress lightly and carry their heavier outer clothing in their rucksacks. Short halts may be taken to check direction or to help pull the ahkios over difficult places. If the route is particularly difficult or if the combat units must increase speed, all ahkios are diverted over an easier route and rejoin the column in the attack area. Artillery observers with radios move with the units they support.

To cross large open areas the combat team breaks into several columns and crosses on widely separated tracks, and each column then travels on a separate route to the attack area.

Because the success of this phase of motti depends on surprise, reconnaissance patrols are seldom dispatched forward of the column.

The attacking unit is halted in an attack area 300 to 500 yards from the designated cutting point, in a position which provides the maximum concealment from the enemy column. At this time the guide detachment advances as close to the cutting point as possible to provide security for the attacking unit. The guide detachment refrains from combat or contact with enemy flank patrols. Next follows a hasty reconnaissance by the commander of the attacking unit, who picks a cutting point which is within 300 yards of the point designated in the original order, and which provides concealment for the attacking force. Supporting weapons are set up to fire on targets on both sides of the cutting point. Artillery and mortars may be alerted but they fire only on call. Engineers attached to the cutting element are prepared to construct road barriers, lay mines, or generally fortify each flank of the cutting point.

When supporting weapons are in position and the infantry units are prepared, the break-through detachment rushes to make the initial cut. It fans out to widen the breach to 500 to 700 yards. A strong roadblock is established at each end of the break and the engineers lay mines and establish obstacles to deny this stretch of road to the enemy and insure an open line of communication for the attackers. All enemy ground communication lines are cut and the task of isolating the mottis begins.

After establishing an uninterrupted line of communication a previously designated element of the attacking unit crosses the road to envelop the enemy column from the opposite side of the road. One element remains on the near side of the road and begins the envelopment of the enemy column in coordination with, and in the same direction as, the element on the far side of the road. Adjacent attacking units establish contact as soon as possible.

In general the operations at all cutting points are executed simultaneously, day or night. This creates maximum confusion among the enemy and prevents strong counter-attacks.

When the motti is enclosed and contact between attacking units established, the bulk of the combat team is withdrawn to concealed assembly areas. This force is prepared to act

as a reserve to break up enemy counterattacks or to make new attacks.

Isolation and annihilation phase. Once the enemy column is cut into several mottis only sufficient strength is left at each point to contain the enemy. Then as the enemy exhausts himself in an effort to break out, the main attack force regroups and repeats its cutting phase. The separated mottis are split again by attacks on the flanks. During this annihilation process it is imperative that the enemy supply lines, both ground and air, remain closed.

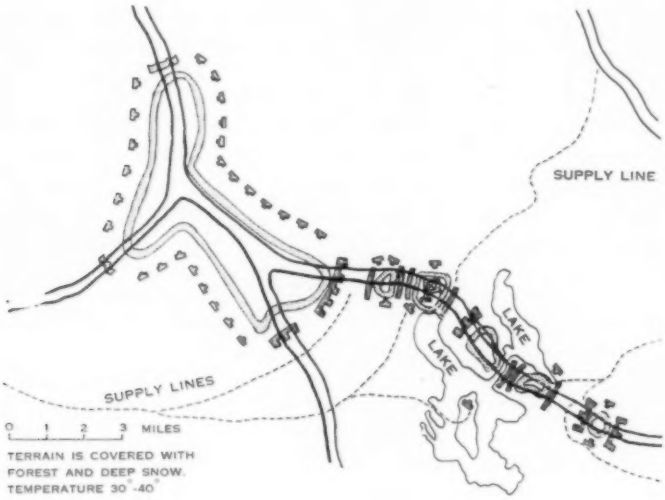


Figure 5. Isolation and annihilation phase.

If the cutting phase is executed on a marching column or on a force which has not had time to build up elaborate fortifications, the annihilation of the mottis begins immediately. However, if the enemy has been in position for a longer period of time and his defenses are more formidable, he is first subjected to softening or exhaustion. Some effective softening methods are: snipers placed around the

mottis, night raids on the mottis, direct fire on bunkers and gun positions, and mortar and artillery harassing fire on the mottis day and night. The isolation, cold, food shortage, and lack of supplies add to the enemy demoralization. Propaganda may be useful at this time.

SUMMARY

The principal conditions necessary for the success of motti tactics are:

Ability of the attacker to move in deep snow, in dense forest, and on roadless terrain. (Skis, ahkios, and sled columns make this possible in extreme dry cold.)

Ability to bivouac in the attack zone, and despite extreme cold and snow, to preserve the continuity of the battle. (Tents are hauled on ahkios.)

Intimate knowledge of the terrain.

Ability to keep direction in dense forests, in darkness, and in storms or fog.

A roadbound enemy.

Surprise.

Small unit leaders who are capable of courageous independent action for long periods.

Promotion Through Army Extension Courses

Recent Department of the Army regulations have greatly increased the importance of Army Extension Courses by setting them up as an equivalent military education requirement for promotion in the National Guard or the Officers Reserve Corps. As in the past, attendance at an associate resident course at a Service School is the best method of obtaining the necessary military education, but for many Reserve and National Guard Officers this is impossible. Many civilian component officers can not leave their jobs for the required period, and even if they could, Service School facilities are not adequate to handle all of them. Army Extension Courses on the other hand can be completed at an officer's home at his own convenience, and are always available to officers of both Civilian and Regular Components.

In addition to those officers who take Army Extension Courses to obtain the military education necessary for promotion, there is a second large group that can profit by enrolling in the appropriate extension course. During the war thousands of civilian component officers were the vital element of an efficient fighting machine. Each, through a process of assignment and personal achievement, became proficient on one or more jobs that required specific knowledge. The processes of demobilization, however, dispersed these well-trained officers and men to the many parts of the country from which they came. As a result, a battle-tested pilot may now be serving in an infantry unit because it is near his home; for the same reason a former infantry officer may now be assigned to an artillery unit. Herein lies the great need for continued military instruction—to qualify these men for the new field which they have selected or to which they have been assigned.

Army Extension Courses set the educational standard for still a third large group—those enlisted men and warrant officers in the National Guard and the Organized Reserve Corps who can meet the present requirements for appointment as second lieutenants in the civilian components.

PROMOTION IN THE ORGANIZED RESERVE CORPS

Department of the Army Regulations 140-5-1, dated 15 December 1948, list the minimum standards for promotion of company and field grade officers (other than colonels of combatant arms). One means of meeting the educational requirement is by successful completion of the appropriate series of the Army Extension Courses. The following list shows the series appropriate to each grade:

Series	*Grade*
10	Pre-commissioned
20	Second Lieutenant
30	First Lieutenant
40	Captain
50	Major
60	Lieutenant Colonel

In this respect only officers of the active reserve are eligible for promotion, and in order to remain in the active reserve, officers must obtain at least thirty hours of credit each year. One means of obtaining credit hours is successful completion of Army Extension Courses. Credit hours for completed Courses are indicated in the annual announcement of Army Extension Courses published by the Department of the Army. Credit is allowed for partially completed sub-courses based on the hours assigned to lessons for which satisfactory solutions have been submitted.

MEMBERS OF THE ENLISTED RESERVE CORPS MAY GAIN A COMMISSION

Members of the enlisted reserve corps who are currently serving with a Class A or B unit who have a minimum of

one year's service with any component of the Armed Forces, may be commissioned as second lieutenants in the Officers Reserve Corps after satisfactory completion of the 10-Series of the appropriate extension course. Naturally, they must also meet age, citizenship, mental, educational, moral, and physical requirements.

PROMOTION FOR THE NATIONAL GUARD OFFICER

The National Guard Regulation which applies to officers states that promotion is a function of the state. However, as is the case with original appointments, state-made promotions are not considered valid in the sense of the National Defense Act until the officers are federally recognized in their new grade. The procedure for obtaining recognition upon promotion is the same as that for obtaining recognition upon original appointment. (Federal recognition is the action of the Department of the Army in acknowledging and recording that officers of the National Guard have met the qualifications and requirements prescribed by the National Defense Act and regulations, and are thereby entitled to receive federal pay and allowances.)

National Guard Regulation No. 20 governs the selection and promotion of officers. It also determines the requirements for federal recognition and specifies that the scope of the professional examination (except for general officers) will be in accordance with AR 140-31. Generally this Army Regulation provides that candidates for appointment or promotion must have military knowledge equivalent to the scope of the appropriate Army Extension Course. Evidence of qualification is determined by satisfactory completion of the appropriate Army Extension Course or by authorized exemptions therefrom.

WAIVER OF TECHNICAL REQUIREMENTS UPON TRANSFER OF NATIONAL GUARD OFFICERS

As previously explained, many officers in order to be in a unit near their homes now hold commissions in an arm

or service different from that in which they performed their wartime service; others are handicapped because their unit was converted to a different arm or service. In such cases, a National Guard officer is given one year to qualify for his new assignment and to establish federal recognition of his commission in the new arm or service. Before the end of the year for which the waiver is granted the officer must retire his waiver. One means of retiring a waiver is by satisfactory completion of the specific Army Extension Courses prescribed by the authority granting the waiver. At the option of the officer, enrollment is authorized in the Army Extension Course series of the next higher grade, permitting him to obtain the necessary educational requirement for promotion at the same time that he retires his waiver.

All subcourses which are common to the two arms or services involved may be omitted in qualifying for federal recognition. This is true whether the officer was transferred to a different arm or service or the unit was converted.

Because some extension course material has not yet been published an officer may be required to appear before a board of officers for an examination to retire a waiver. The scope of the examination, however, is confined to the published Army Extension Course material appropriate to the officer's grade and branch and to specified collateral reading material.

COMMISSIONS FOR WARRANT OFFICERS AND ENLISTED MEMBERS OF THE NATIONAL GUARD

National Guard warrant officers or enlisted men who have one year of service with either the National Guard or the Regular Army and who have completed the appropriate 10 series may be promoted to second lieutenant in the National Guard with a one-year waiver if they are otherwise qualified.

CONCLUSION

Army Extension Courses are not the only means of obtaining the military education necessary for promotion or

for obtaining a commission, but they are the means most readily available. Few National Guard and Organized Reserve Corps officers can afford to leave their civilian jobs for a sufficiently long period to attend resident instruction at a service school, and many may find it difficult to attend the scheduled hours of instruction in their unit. To encourage members of the Civilian Components to qualify themselves for promotion, the Department of the Army makes the up-to-date instruction given at The Infantry School available to the student through infantry Army Extension Courses.